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SKIN DISEASES IN THEIR RELATION TO DISTURBANCES OF OTHER ORGANS*

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The relationship of title and subject matter obviously requires a few words of elucidation. The subject embraces such a broad territory as to defy any effort directed toward close correlation or comparative analysis. An attempt to present, within a limited compass, the manifold and diversified interrelationships between certain dermatoses and accompanying morbid processes in organs other than the skin, is like trying to fit a large subject into a small space in a mosaic pattern.

It is therefore deemed expedient, before going further, to ask oneself, "What criterion should govern the selection of material?" The answer to this question is that only certain vaguely delimited integral parts of the vast subject lend themselves to consideration and discussion; a well-ordered and well-proportioned survey would extend far beyond bounds. Hence the necessity of confining oneself to a small sphere and the avoidance, as far as possible, of letting one sphere overlap into another.

Almost any disease of the skin is capable, under certain circumstances, of provoking functional or organic changes—or both—in some other organ. A group of warts on the back of the hand conjures up no specter of concealed complications in other parts of the body; and yet, every practitioner is familiar with the fact that a wart on the *sole of the foot*, if sufficiently neglected and painful, is capable of causing not only functional but also organic structural changes in the bones, muscles and tendons of the affected extremity. (Incidentally, it is apropos to mention that warts have been cured by mental suggestion.) Such examples of cause and effect may be multiplied a thou-

sand fold: facial hypertrichosis in young women has led to melancholia and insanity; itching of the skin is sometimes a symptom of visceral cancer; itching of the nose is said to be a symptom of brain tumor; it has been asserted that spoon nails are pathognomic of achylic anemia; a small boil on the upper lip may cause death; and so on, *ad infinitum*.

In the presidential address entitled "The Field of Dermatology," Pusey delivered an exceptionally entertaining speech in which he said: "Engman has given a fine phrase, 'The skin, the mirror of the body.' He had in mind that the skin shows practically all the pathologic processes that occur in the body and that in the skin they are exposed to direct view. From another standpoint one might with equal truth speak of the skin as the mask of the body. In a small group of systemic diseases the skin characteristically reveals internal disease, in a few others it does so in rare cases, but as a rule, far from being a gossip about what goes on inside, it is a discreet protector of the body's secrets. . . . There is no more difficult part of dermatology than the interpretation of

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the general health from the condition of the skin and the interpretation of the condition of the skin from the general health."

In pursuance of the ideas expressed in these informative sentences, it might be of interest briefly to discuss certain reciprocal disease-processes which, although familiar to the dermatologist, are presumably not so well known to practitioners in other fields of medicine. It is beyond the scope of this paper to refer to more than a few pertinent illustrations.

The oftentimes severe constitutional symptoms of *erythema nodosum*, especially in children, directs such patients more frequently to the general practitioner than to the dermatologist. While the cutaneous signs in this disease are known to all, there is considerably less knowledge abroad concerning visceral symptoms. Erythema nodosum is frequently accompanied by marked constitutional disturbances, which are particularly severe in children and often retard convalescence. Rheumatoid pains are more frequent in adults, especially in the lower legs, the knee and ankle joints, while genuine articular diseases are very rare complications. Fever is at first high and parallels in severity the extent of the exanthem. But if it persists over 14 days after the eruption has disappeared it usually indicates involvement of the internal organs (Tachau). The lymph glands, lymphatics and spleen are very rarely affected. The blood count shows no essential changes at first and only occasionally anemia during convalescence. Roentgenologically the lungs exhibit, during the phase of eruption, enlarged shadows near the hilum, often including small, compact peribronchial foci, which are usually more marked on one side. These fairly considerable changes can not be confirmed, however, by percussion or auscultation. Possibly they indicate beginning tuberculosis, an assumption which is supported by the positive Pirquet test. On the other hand, erythema nodosum is not often associated with clearly tuberculous processes, so that the above positive reaction has little diagnostic value. The hilum infiltrations have been proved benign constitutional complications, spontaneously disappearing after 3 months or occasionally after two years. They are also interpreted as "epituberculous infiltrations" or inflammations corresponding to the cutaneous erythema nodules, a hypothesis which certainly requires additional

careful and serial control verification. The serous membranes are apparently little affected. Defects of the cardiac valves are also rare complications which develop, as a rule, only after a preceding angina. Temporary disturbance of vascular functioning, and temporary endo- and myocardial injuries are more often observed. The kidneys are also sometimes involved, exhibiting either temporary albuminuria or even hemorrhagic nephritis. Enteritis, obstipation and diarrhea are likewise observed as associated symptoms. Recurrent erythema nodosum is exceedingly rare, so that the disease usually confers permanent immunity.

Of the commoner eruptions characterized by the presence of foci of tuberculosis in some part of the body other than the skin, much study has been devoted to the *sarcoid group*, embracing benign miliary lupoids, also known as Schaumann's disease. In a fairly large proportion of sarcoid patients, it has been frequently shown that accompanying morbid changes, marked by an intrinsic pathologic architecture, are present in lungs and bones. Roentgenologic examination of the lungs discloses a condition which has been referred to as marmorization—a process affecting chiefly the middle and inferior portions of the lungs, to be sharply differentiated from healed or active tuberculous processes in the upper lobes. This pulmonary sarcoid mottling requires alertness in differential diagnosis on the basis of roentgenologic interpretation. Cystic disease of the bones, chiefly the phalanges, less frequently of the long bones, are being demonstrated with increasing frequency since patients are routinely subjected to roentgenologic examination. These osseous changes have been called by Jüngling, *osteitis tuberculosa multiplex cystica*, a designation based on roentgenologic findings and on histologic evidence of tuberculosis in the bone marrow, as well as successful guinea pig inoculations with bone tissue.

The reciprocal cutaneous and visceral manifestations of another common disease, acute and subacute disseminated *lupus erythematosus*, have been the subject of controversial discussions in the past few years. Recently Rose and Goldberg described the incidence (based on observation of five cases, three with necropsy findings) of marked constitutional symptoms which may precede the appearance of the skin lesions.

These include fever of a septic type, weight loss, weakness, bone and joint pains, acute attacks of abdominal pain simulating appendiceal or gall bladder disease, urinary symptoms, impairment of vision, cough, hemoptysis, headache, dyspnea, and precordial pain. Visceral lesions involving the kidneys, heart, lungs, spleen, liver, serous surfaces, joints, eyes, lymphatics and gastrointestinal tract, have been recorded. Anemia, leukopenia, albuminuria, cylindruria and pyuria are encountered in these patients. In two of their five patients, an ocular disturbance in the form of marked papilledema was found—a complication said to be rarely mentioned in the literature. These authors are of the opinion that a "review of their cases supports the conception that the disseminated skin lesions are not the principal feature of the disease, but rather the cutaneous expression of a generalized systemic disorder, whether it be sepsis, a 'toxemia,' or what not. The visceral lesions probably persist or progress during phases of cutaneous remission. Several of the clinical aspects bear a striking resemblance to subacute bacterial endocarditis. It seems probable that the syndrome described by Osler as erythema exudativum multiforme, and the cases of atypical endocarditis with facial erythema described by Libman and Sacks are either variants of, or identical with, disseminated lupus erythematosus." Somewhat analogous conclusions were arrived at by Belote and Ratner, in their recent contribution dealing with this malady. They expressed the opinion that "the so-called Libman-Sacks syndrome is a subvariety of the Osler erythema group and that the lupus erythematosus-like eruption of the Libman-Sacks syndrome is erythema multiforme, representing a bacteria-free phase of a previous sepsis." With respect to the question of sepsis, it should be pointed out that only a few isolated cases of sepsis have been reported and these have not been generally accepted as conclusive. We are in accord with the majority of dermatologists who recognize the existence of many gaps to be filled and obscure signs to be logically interpreted in this disease-complex. Incidentally, we object to the use of the designation "erythema multiforme" in reference to these eruptions. The erythema exudativum multiforme described by Hebra in 1854 is a separate and independent disease-entity; its morphology, symptomatology, occurrence and course dif-

fer conspicuously from acute disseminated lupus erythematosus and from the cutaneous manifestations of the Libman-Sacks syndrome; a better designation for such eruptions is polymorphous exudative erythema, to differentiate them from Hebra's original description.

On account of its intimate relationship to abdominal and pelvic tumors, many non-dermatologists are familiar with the rare disease, *acanthosis nigricans*, first described by Politzer and by Janowsky, in 1890. Two forms of this condition are recognized—the juvenile and the adult type. Very little is known regarding the pathogenesis of the juvenile type; obscure metabolic and endocrinologic disturbances, derangements of the functions of the abdominal sympathetics and many other morbid processes have been incriminated. Usually there is no associated malignancy, the eruption frequently runs a benign course and restitution takes place. In the adult form, cancer of the abdominal and pelvic viscera is present in the majority of cases. In some instances, benign intra-abdominal tumors have been encountered. Montgomery recently called attention to the fact that the integumentary changes in the adult type associated with visceral carcinoma, may precede symptoms attributable to abdominal neoplasms by as much as ten years. The pathogenetic factors in the adult type seem to be linked with malignancy involving the chromaffin and abdominal sympathetic system, either by direct extension, by metastasis, by pressure phenomena, or possibly by secondary toxic changes. In a case described by Wise in 1918, a woman aged twenty-five developed the typical cutaneous eruption about a year after a decapsulation of the kidneys was done; this operation was performed immediately after the patient had swallowed a large amount of corrosive sublimate with suicidal intent. The skin returned to normal after a course of x-ray therapy and the patient is still alive and apparently in good health.

Although a number of other diseases manifesting correlative external and internal signs and symptoms come crowding to mind, we must forbear to do more than mention a few additional examples: in diabetes, the common cutaneous complications are pruritus, eczema, furunculosis and gangrene; the uncommon ones are xanthoma, bronze diabetes and necrobiosis lipoidica diabetorum; in rheumatoid conditions,

one encounters so-called rheumatic nodules and erythema annulare rheumaticum, the latter associated with endocarditis; in a group of diseases linked with disturbances of lipid metabolism, embracing xanthoma tuberosum and xanthelasma, cutaneous manifestations possessing individual clinical features are described under such names as lipid-proteinosis, extracellular cholesterinosis, Niemann-Pick disease and several others. These have been comprehensively described in Jadassohn's Handbuch by Urbach of Vienna. A malady about which little has been written and less is known is the chronic indolent multiple ulceration of the legs associated with "idiopathic" colitis.

We have discussed a somewhat miscellaneous group of diseases intended to serve as illustrative examples of more or less varied pathologic changes occurring simultaneously in the same organism, and involving chiefly the skin and viscera.

Regarded from a generously broad point of view, a heterogeneous group of skin diseases may be separated into two fairly well-defined divisions: first, those eruptions which are accompanied by, or are intimately associated with, changes characterized by *parallel* pathologic (or functional) phenomena in the viscera and other organs; secondly, those eruptions which are accompanied by, or are intimately associated with, changes characterized by *divergent* pathologic (or functional) phenomena in the viscera and other organs.

Familiar examples of such parallel pathologic phenomena are the infectious granulomas—syphilis, tuberculosis, leprosy, blastomycosis, and so forth; also the hemato-poietic diseases and Hodgkin's disease. But even in this well-known group, there may be deviations from parallelism with respect to the cutaneous and visceral manifestations; for example, Hodgkin's disease and leukemia may exhibit *non-specific* eruptions of urticaria, or a dermatosis closely simulating Duhring's disease, or a universal erythroderma. Occasionally one encounters cutaneous lesions in syphilis and leprosy, which have the structure of tuberculosis or sarcoid.

Examples of dermatoses symbolized by *divergent* pathologic changes in the skin and other organs are equally well known; many of them are, however, apparently closely linked with functional rather than organic disturbances of the endocrine glands; for example, circumscribed myxedema of the

legs; some of them may be related to avitaminoses; on the other hand, Addison's disease—the syndrome of diseases of the suprarenals, hyperpigmentation of the skin and mucosæ, in association with various systemic disturbances—is a conspicuous example of *coexistent but dissimilar* morbid changes in the same organism. This group embraces such diseases as scleroderma, Recklinghausen's disease, dermatomyositis and others, to be mentioned later.

It should be emphasized that in neither of these two artificial categories are we dealing with anything related to "sealed patterns." The functional and pathologic interrelationships are varied and diversified in both groups; particularly in the second group, one need not look for "fixed rules" or "constants" with respect to coexistent external and internal anomalies.

To illustrate pertinent instances of divergent pathologic manifestations, we have selected disease-complexes which are accompanied, either regularly or only occasionally, by skeletal and by ocular changes.

Recklinghausen's disease is regarded by many as a congenital nevoid anomaly originating in disturbances of the germ-plasm. The disease manifests itself as a syndrome characterized partly by morbid changes in tissues of ectodermal origin—namely the skin and the central nervous system. It is probable that early developmental disturbances involving ectodermal structures play a leading rôle in its pathogenesis. This variety of systematized neurofibromatosis is classified as a generalized disease of the peripheral, cerebrospinal and sympathetic nerves, including nerve roots and nerve stems, and involving the finest filaments in the skin, the skeletal muscles and the intestines. The cutaneous tumors comprise soft fibromas and tumors which have proved to be of mesenchymal derivation, called neurinomas. These latter have their origin in certain differentiated fibrillary structures which form a part of the mesenchymal strands; these, in turn, are said to be derived from elements of ectodermal origin, the forerunners of the so-called Schwann cells. The classification of these neurinomas is under controversy, some investigators regarding the Schwann cells as mother-cells of the nerve fibres, others contending that they constitute merely a nervous or glial supporting substance of the nerve strands. The consensus with reference to the nature

of generalized neurofibromatosis is that it portrays a symptom-complex manifested by a systematized blastomatous alteration in the peripheral and central nervous systems, preceded by a widespread congenital anomaly of the anlage of the nervous system.

The usual manifestations are the familiar pigmentary, vascular, connective tissue and nerve tissue changes occurring in the skin. In the rarer cases, the so-called Pringle type of adenoma sebaceum, affecting the face, and syringo-cystadenoma of the trunk, form part of the cutaneous manifestations. Malignant transformation of cutaneous lesions of different types have been reported as rare complications. Mental impairment is a relatively common occurrence, although many patients show no signs of impaired intellect. On the other hand, Recklinghausen's disease and *tuberous sclerosis* is a symptom-complex familiar to neuropsychiatrists, and, partly due to its rarity, has been the subject of a considerable number of publications.

In this disease coexistent morbid processes marked by a divergent pathologic architecture are referable chiefly to the skeletal system and the eye.

The most frequent *bone changes* are kyphoscoliosis, abnormalities of growth, irregularity of outline of shafts of long bones, and subperiosteal bone cysts. These skeletal disorders have been clearly described by Brooks and Lehman of St. Louis. (The Bone Changes in Recklinghausen's Neurofibromatosis. Surg., Gyn., and Obstet., 38: 587. May, 1924.) Other bone changes are characterized by softening, fragility, asymmetry of the skull, osteomalacia, enlargement of the sella turcica, syndactyly, atrophy and spina bifida. Lateral curvature of the spine is by far the most frequent skeletal complication.

The coexistence of *cataract* and Recklinghausen's disease has been noted especially in recent years. At first thought to be merely a coincidence, dermatologists are now alert in examining for cataract, vascular changes in the eye grounds and other ocular disturbances.

The simultaneous occurrence of Recklinghausen's disease, adenoma sebaceum of the Pringle type and tuberous sclerosis in the same patient, has been described as a rare complex. Naturally, this combination of disease processes gives rise to a remarkably kaleidoscopic set of symptoms, both sub-

jective and objective. In addition to the cutaneous and bony changes mentioned, and the various manifestations due to involvement of the central nervous system, such patients at times exhibit peculiar lesions involving the skin surrounding the nails of the fingers and toes. These consist mainly of papillomas, fibromas and warts, the pathologic structures of which are strikingly different from those of the other cutaneous and nerve lesions; nevertheless, they seem to form part of the symptom-complex, despite their alien nature.

The association of cutaneous manifestations with morbid changes in the bones exists in several other more or less well-defined disease processes. Among these are scleroderma and morphea, acro-dermatitis atrophicans, various forms of poikiloderma, dermatomyositis, dermatofibrosis lenticularis and a number of unclassified congenital and hereditary anomalies.

Under the title of "Cicatrizing Morphea with Ankylosing Arthritis and Osteoblastic Change," Crawford of Pittsburgh recently described an illustrative case of acute progressive morphea of the skin and subcutaneous tissue in a child. The disease involved an extensive area from the level of the sixth rib downward over the abdomen, groins, buttocks and lower extremities, and eventually resolved, leaving the skin smooth and atrophied. The condition was associated with rheumatoid arthritis, and ankylosis and a hyperplastic bony ridge in each hip joint. In a review of the literature, Crawford states that "atrophic changes of the bones and joints are occasionally associated with both the generalized and the circumscribed form of scleroderma. Rarefying osteitis with actual atrophy of the bone and decalcification, affecting especially the small bones of the hands and feet and the joints of the extremities, has been noted. Areas of increased calcification and density of the bone in conjunction with rarefying processes may occur. The most frequent diseases of the joints are of the poly-articular chronic rheumatoid type, with changes in the synovia and articular surfaces. These changes evidently develop first in the synovial membrane and affect secondarily the bones and cartilages, which become rarefied and finally atrophic. Arthritis frequently develops before the onset of scleroderma as

†Crawford, Stanley: Arch. Dermat. and Syph., 33:506, (March) 1936.

well as after its onset."† Similar conditions have been described in cases of acrodermatitis atrophicans. In a case of dermatomyositis, Stuckey of London reported the incidence of advanced osteoporosis in the bones of the hands, and Curth of New York reported another case of dermatofibrosis lenticularis which is always associated with osteopoikilosis of the long bones.

Coexisting *ocular disease* has been mentioned in connection with neurofibromatosis. Recently, attention has been directed toward the simultaneous occurrence of cataract in patients with *disseminate neurodermatitis*, and the familial occurrence of cataract in cases of *poikiloderma* has been the subject of several recent publications. The coexistence of keratitis with *rosacea* has long been recognized. Ophthalmic involvement in *pseudoxanthoma elasticum*, a degenerative disease of the elastic tissue of the skin, is manifested in a proportion of such cases by angioid streaks of the retina and by choroiditis. The question whether the two conditions are attributable to a common etiologic agent has not been determined. Grönblad considers the angioid streaks of the retina to be caused by degenerative changes in the elastic membrane, permitting the vessels to shine through it; on these grounds, he believes that the changes in the skin and the eye have a common pathogenicity. This concept is in need of verification.

These diverse ocular complications, aside from their importance to the patient and interest to every clinician, have certainly been conducive toward making the dermatologist more than ever "eye-conscious," especially with respect to eruptions of unknown or obscure etiology.

As with the organs of special sense and with the skeletal system in their relation to cutaneous diseases, so also with respect to every other organ and function in the body, our ken broadens and our knowledge increases, slowly but surely. True, many concepts in the field of dermatology are vague and unformed, just as they are in most of the other specialties. We dermatologists have many hard nuts to crack, and we are eager to learn from our non-dermatologic colleagues.

What, then, is the significance of such compilatory data as we have submitted? There is the academic interest that attaches to the comprehensive study of disease processes as a whole. But of far greater importance is the fact that it is precisely on such continued search for associations and relations that progress often depends. The dermatologist and his colleagues in other specialties must be brothers-in-arms against the common foe. When Emerson spoke of "the amassed thought and experience of innumerable minds," he might have been thinking of Medicine.

THE STORY OF CESAREAN SECTION AT THE UNIVERSITY OF MICHIGAN*

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In 1871 R. P. Harris, president of the Philadelphia Obstetrical Society, published a report on the results of cesarean operations known to have been performed in this country between 1822 and 1871. This report comprised a total of 70 cases, 59 of which were complete enough in detail to allow statistical calculation. Among these one was performed in 1869 by Abram Sager, first Professor of Obstetrics at the University of Michigan. A brief résumé of this early operation may be of interest. The patient, a rachitic dwarf with an absolute contraction of the pelvis, was in the 9th month of gestation. After six hours of labor a cesarean section was decided upon although the advisability of doing a destructive operation had been considered. Sager secured the assistance of other members of the Faculty, including the Professor of Anatomy.

In spite of a total lack of knowledge concerning the nature of the infection, and asepsis, extreme care was exercised to avoid contamination. Hemostasis was effected by "pressure" and the free application of "pure ice water." Interrupted silver wire sutures were used to close the uterus. Sager

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emphasized this closure, stating that the literature "contains reports of at least seven cases in which the uterus has been closed by sutures." He recommended suturing as "innocuous, to prevent nonclosure, secondary hemorrhage, effusion of lochia and pus from the granulating wound, with its natural sequelæ, peritonitis and adhesions, if not death." The patient died 18 hours after operation. The cause of death was given as peritonitis, but more likely was from shock.

There is no record of a cesarean section being performed by Dunster, or Martin, Sager's immediate successors. Cesarean section was more frequently utilized by Reuben Peterson, who headed the Department of Obstetrics and Gynecology from 1901 to 1931. Since 1931 these cases have been under the direct supervision of Norman F. Miller, present Professor and Head of the Department.

The following analysis of 158 cesareanized obstetrical patients covers a period of thirty-five years, 1901 to 1936. Many of the operations were performed by men during their years of training as specialists in obstetrics. In the first operation in the series analyzed, the operator, fearing hemorrhage from the incised gravid uterus, placed a tourniquet of heavy rubber tubing around the broad ligaments and lower uterine segment. Much to his surprise (he had never seen a cesarean section), there was no hemorrhage and the tourniquet was never used again.

General Statistical Information

Incidence: Previous to 1924—1.6% } 2.2%
1924-1936—2.5%

Age: Average 24.6 years, youngest 12, oldest 43.

Parity: Primipara—80

Multipara—78

Para 1—34

Para 2—21

Para 3—9

Para 4—5

Para 5—2

Para 6—1

Para 7—3

Para 8—1

Para 9—1

Para 10—1

Race: White 94.8 per cent; black 5.2 per cent

Previous section: 116—none 9—two
32—one 1—three

Indications for Operation

A wide diversity of indications for operation existed in this series. In some cases where more than one indication was present, all those of equal importance are listed, otherwise only the primary or most important reason is tabulated:

I. Cephalo-pelvic disproportion 57
With medical indication.... 6
With gynecological indication 6
With eclampsia 2
With previous section..... 19

90—90 57 Per Cent

II. Previous section 18
Previous section and toxemia 2
Previous section and eclampsia 2

22—22 14 Per Cent

III. Toxemia:
Eclampsia 4
Nephritis 1
Polycystic kidney..... 1

6—5 3 Per Cent

IV. Sterilization by court order:
Mental deficiency 13
Epilepsy 1

14—14 9 Per Cent

V. Bleeding:
Placenta previa 5
Placenta previa and previous interposition..... 1
Abruptio placenta 2

8—8 5 Per Cent

VI. Miscellaneous gynecological and obstetrical indications:
Inertia and dystocia due to rigid cervix..... 3
Previous stillbirth 2
Fibroids 3
Split pelvis 2
Neglected transverse presentation 3
Carcinoma of cervix..... 1

14—12 8 Per Cent

VII. Miscellaneous medical indications:

Rheumatic heart disease.. 3
Congenital heart disease.. 2
Syphilitic heart disease... 1
Tuberculosis, lungs, and larynx 1
Chronic nephritis with ascites, and chronic bronchitis 1

8—7 4 Per Cent

Contracted pelvis is the most frequent indication for cesarean section. In this study ninety, or more than half of the cases, were cesareanized because of cephalo-pelvic disproportion. Coexisting obstetric and medical complications (previous repair of third degree laceration of the perineum, eclampsia, heart disease and tuberculosis, etc.) in some cases offered additional indication for operation.

Abdominal operative delivery was performed on 42 patients who had had previous sections. Nineteen of these cases are listed under cephalo-pelvic disproportion and 1 under split pelvis. Two were pre-eclamptic and 2 eclamptic at the time of operation in this hospital.

Sterilization by court order formed the basis for operation in 14 cases. Of these one was an epileptic, the others were feeble-minded. Elective cesarean section combined with sterilization was considered no greater hazard in this elective group than delivery followed later by laparotomy. Furthermore, a second anesthetic and operation were avoided and hospitalization minimized. Incidental sterilization was performed in thirty-eight additional cases.

In our group six cases were cesareanized because of toxemia and an additional six cases, listed under disproportion and previous section, were toxic at the time of operation. One out of eight eclamptics or 12.5 per cent died following operation. While this tends to corroborate the general feeling regarding this method of treatment, it must not be forgotten that these cases were operated when there still existed a relatively high direct mortality following cesarean section. All of the cases indicated by eclampsia were operated prior to 1921.

Since 1931 we have recognized certain cases of placenta previa and premature separation of the placenta as justifiable indications for cesarean delivery. Of our eight cases only two were performed previous to 1929 and both were Porro cesarean sections for treatment of placenta previa. One of these had had a previous interposition operation. Both patients died.

Miscellaneous indications for operation were found in 22 cases. Three operations were performed for cervical cystocia. Two of the three cases had sustained previous cervical surgery: one a repeated cautery, and the other a cautery followed by conization. The third case gave no history of previous cervical manipulation, but no dilatation of the cervix occurred after 32 hours of labor. Two operations were performed because of previous repeated stillbirths occurring between seven and eight and a half months gestation. One patient had had seven, and the other five previous pregnancies with no living children. Elective section resulted in viable infants in both cases. Fibroids in three cases, neglected transverse

presentation in three cases, and carcinoma of the cervix in one case prevented normal delivery. One patient with a split pelvis and complete exstrophy of the bladder, had previously had bilateral ureteral transplants into the colon and was subsequently cesareanized on two occasions. Rheumatic, congenital and syphilitic heart disease accounted for six cases, while tuberculosis of lungs and larynx, and chronic nephritis with ascites, and chronic bronchitis completed the list of miscellaneous indications.

STAGE OF LABOR OR PREGNANCY WHEN OPERATION WAS PERFORMED

Before the ninth month (8½ months).....	2
During the ninth month before term.....	13
Elective at term with no labor.....	72
During the first 6 hours of labor.....	31
After the first 6 hours of labor.....	37
At term but not mentioned as to duration of labor	3

Maternal Mortality

As there were ten maternal deaths in this thirty-four year series the absolute mortality was 6.33 per cent. Two of these were not attributable to the operation. One died from pulmonary and laryngeal tuberculosis three months postoperatively, and the other died after a left nephrectomy necessitated by ureteral obstruction due to far advanced carcinoma of the cervix. The corrected mortality therefore would be eight or 5.06 per cent. Maternal mortality according to five-year periods was as follows:

TYPE, NUMBER, DEATHS AND DEATH RATE FOR FIVE YEAR PERIODS

5-year Intervals	Classical	Low	Porro	Total	No. Deaths	Per Cent Death Rate
1902-06	2	0	0	2	0	0
1907-11	10	0	1	11	0	0
1912-16	8	0	2	10	3	30
1917-21	11	1	0	12	2	16.66
1922-26	38	6	0	44	2	4.54
1927-31	19	5	2	26	1	3.84
*1932-36	12	39	2	53	0	0
Total	100	51	7	158	8	5.06

*From January 1, 1932, until July 1, 1936.

A perusal of the above chart reveals the following points of interest:

(1) Recent preference for the low operation. (2) Decreased incidence of the Porro type of operation. (3) Gradual diminution of the maternal death rate. (4) No maternal deaths during the last four and a half years.

DEATH RATE FOLLOWING EACH TYPE OF OPERATION

Type	Number	Maternal Deaths	Maternal Death Rate	Fetal Deaths	Fetal Death Rate
Porro	7	2	28.5%	2	28.5%
Classical	100	4	4.0%	15	15.7%
Low	51	2	3.9%	3	6.4%

The two deaths following Porro cesarean section occurred on the third and fifteenth postoperative days, as a result of septicemia. The indication for operation in both cases was placenta previa and in both instances the vagina had been packed before admission to the hospital. One was considered in fair condition with only moderate anemia, while the other had been having hemorrhage for two weeks. She had a hemoglobin of 33 per cent and bilateral pyelonephritis, with frank pus in the urine before operation.

Contracted pelvis was the indication for operation in the two cases dying following low section. One patient, a rachitic dwarf, had been in labor three and one-half hours. She had had no previous vaginal examination. Death occurred on the fifth postoperative day as a result of intestinal obstruction. Autopsy showed compression of an anomalous sigmoid colon between the involuting uterus and the sacral promontory. There were no signs of sepsis, but the heart showed hypoplasia and acute dilatation. The other patient had been in labor eighteen hours and the membranes had ruptured several hours previous to operation. She had a severe pyelonephritis which had been treated before operation by ureteral catheterization. The postoperative course was febrile for two weeks but was otherwise uneventful. Strict confinement to bed was insisted upon for an additional week. Death occurred suddenly on the fourth ambulatory day, which was the twenty-sixth postoperative day. The cause of death presumably was pulmonary embolism. Autopsy was not permitted.

There were four deaths after classical cesarean section. The indication in two of the four was contracted pelvis, both of them having had one previous section. One case was operated forty hours after onset of contractions. The patient was exhausted on admission to the hospital and died of pneumonia on the third postoperative day. The other, an elective section, had mitral stenosis and pyelitis, and died of shock during the operation. Of the two cases remaining, one,

an eclamptic, had three convulsions previous to operation and continued with post partum convulsions. Death occurred on the seventh postoperative day. Autopsy showed fibrinopurulent peritonitis, broad ligament abscess, mitral stenosis, bronchopneumonia and the effect of toxemia. The fourth case was admitted to the hospital fourteen hours after the onset of labor, in fair physical condition. Operation was performed because of complicating leiomyofibroma. The patient died of sepsis on the twelfth postoperative day.

Summary of the eight maternal deaths with respect to stage of labor and the cause of death is as follows:

Stage of labor:	
Elective at term.....	2
After onset of labor, membranes intact.....	2
After onset of labor, membranes ruptured.....	2
After previous packing of the vagina.....	2
Cause of death:	
Sepsis	4
Pulmonary embolism.....	1
(Patient had been septic)	
Intestinal obstruction (no sepsis).....	1
(Anomalous sigmoid, rachitic dwarf)	
Pneumonia	1
Shock	1

Fetal Mortality

A survey of fetal mortality reveals twenty deaths in all, or a death rate of 12.6 per cent. Death was attributed to the following causes:

Not known.....	5
Congenital heart disease.....	3
Stillborn	6
Prematurity	3
Non-viability	1
Monstrosity	1
Pneumonia (43 days after birth).....	1

Eliminating the last three and the three stillbirths diagnosed before operation (one abruptio placenta and two neglected transverse presentations) there is a corrected fetal mortality rate of 8.8 per cent.

Maternal Morbidity

Maternal morbidity was noted in eighty-one cases. More than one cause for morbidity was found in some cases:

Febrile puerperium.....	42
Temperature 100.4 degrees for 3 days or more, with no known cause	
Puerperal sepsis	6
Wound infection	14
Breast infection	1
Pneumonia	2
Pulmonary embolism	1
Thrombophlebitis	4
Nephritis	1
Suppurative otitis media.....	1
Bell's palsy.....	1
None, other than indication for operation.....	8

The following instances were considered as attributable to the operation:

Febrile puerperium.....	42
Puerperal sepsis.....	6
Wound infection.....	14
Pneumonia	2
Pulmonary embolism.....	1
Thrombophlebitis	4

There is a 17.8 per cent maternal morbidity directly attributable to the operation, other than the usual postoperative febrile reaction.

Summary

As a result of this analysis of 158 abdominal cesarean sections the following points are considered significant:

1. The panoramic study includes the earliest case recorded in the University of Michigan Hospital.

2. The incidence of cesarean section has increased from 1.6 per cent prior to 1924 to 2.5 per cent since that time. This increase may be accounted for by the fact that certain cases of placenta previa and abruptio, as well as court order for sterilization of feeble-minded pregnant women are now accepted as justifiable indications for operation in this clinic.

3. The maximum number of sections in any one patient in this series was four.

4. The most frequent indication for the operation was cephalopelvic disproportion.

5. A combination of indications, which singly do not necessitate operation, may force the issue for operation.

6. Since 1931 our preference has been for the low type of operation.

7. In the entire group of 158 cases, maternal mortality was about the same in the low and classical types of operation.

8. Pre-operative physical condition of the patient is important.

9. Integrity of membranes is important.

10. Elective section carries the best prognosis.

11. Sepsis is the most frequent cause of death following cesarean section.

12. Corrected fetal mortality was 8.8 per cent (absolute—12.6 per cent).

13. Corrected maternal mortality for the 35 year period was 5.06 per cent (absolute—6.33 per cent).

14. There have been no maternal deaths following cesarean section in the last four and one-half years.

INDUSTRIAL DUSTS AND LUNG DISEASES*

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The lungs, as described in Chinese medicine, "have a fishy smell and a hot taste. They store the energy and are the seat of sorrow. The lungs produce the skin and the hair, form the kidneys, and control the heart. They have the nose as their opening, convert the fluids into nasal secretions, supply the skin, and nourish the fine hair. The lungs are attached to the third vertebra and hang down in eight lobes. They are gray in color and are pierced by eighty small holes."

Whatever may be the fallacies of these statements, many an American industrialist and many a worker willingly will accept the Chinese doctrine that "lungs are the seat of sorrow."

Every work-day in this country approximately 500,000 employees go about their duties exposed to silica dust in harmful quantities. This number is distributed over at least sixty different occupations, including, among others, foundry workers, core makers, granite cutters, rock drillers, sand pulverizers, sand blasters, and vitreous enamellers. In addition, at least 2,000,000 other workers are employed in dusty trades in which no silica exists or wherein the quantity of silica is below that capable of producing that form of pneumoconiosis

known as silicosis. These workers may be found in coal mines, limestone quarries, carbon black factories, glass plants, iron mines, coke ovens, gypsum mines, seed and grain mills, pigment factories, zinc smelters, lead refineries, and on and on through scores of other work places. As one becomes familiar with the extent of dusty trades, it becomes amazing, not that there is so much dusty lung disease, but that so little arises.

All of the many scores of industrial dusts entering the lungs in harmful quantities may be divided into four classes for the purposes of this present discussion:

*Read before the Section on Radiology, Michigan State Medical Society, Detroit, September 24, 1936.

1. Dusts that enter the body by way of the lungs without producing their chief effects upon the lungs. By way of examples of this type may be cited lead, arsenic, mercury, and manganese.
2. Dusts which, after coming in contact with the respiratory tract, including the lungs, lead to allergic manifestations. Already this has been covered by Dr. Towey, and need not be discussed in any detail here. However, by way of casual examples, may be cited pyrethrum, leather, cotton, fur, and many dyes, of which paraphenylenediamine is the best known.
3. Dusts which enter the lungs and become the causative agents of immediate inflammatory reactions. This class embraces such agents as soda ash, lime, acid and alkali dusts, and obvious others, such as resins in dust form.
4. Dusts which, after entering the lungs, set up reactions that eventuate in the production of fibrosis,—the so-called fibro-genetic dusts.

For lack of time it is necessary to limit further discussion to this last-mentioned group. Also, for the same reason, only the briefest mention may be made of any aspect of the action of these dusts or the conditions in industry under which lung injury arises.

Of all the mineral dusts leading to lung injury, silica and asbestos only stand out as sources of direful lung disease characterized by extensive fibrosis. Associated with these dusts are the respective terms "silicosis" and "asbestosis." Both are forms of pneumoconiosis, which term, from its very derivation, is applicable to any degree of abnormality of the lungs produced by any dusts. However, many pneumoconioses are not associated with unusual quantities and distributions of fibrotic tissue.

Silicosis is a specific disease, widely defined as, "a disease due to breathing air containing silica (SiO_2), characterized anatomically by generalized fibrotic changes and the development of miliary nodulation in both lungs, and clinically by shortness of breath, decreased chest expansion, lessened capacity for work, absence of fever, increased susceptibility to tuberculosis (some or all of which symptoms may be present), and by characteristic x-ray findings." Mani-

festly, error attends the use of such terminology as "coal dust silicosis," "lamp black silicosis," "lime dust silicosis," etc. When silicosis appears in the coal miner, which is fairly common, it must be attributed to the silica content of the overburden of the coal seams. While this is true, the coal dust itself plays an important rôle in accelerating the appearance of the silicosis. Anthracosilicosis is a characteristic occupational disease of anthracite coal miners. Similarly, when silicosis appears in a cement worker, it must be attributed to the silica content of the ingredients entering into cement. While this is true, it is granted that cement workers may present increased quantities of fibrosis, quite apart from the typical features of silicosis and attributable to dusts other than SiO_2 .

Mineral dusts other than the two mentioned are of comparative insignificance as sources of disabling industrial lung disease. If the damaging properties of silica dusts be arbitrarily rated at 100, then, with the exception of asbestos, most other dusts may be represented on this same scale by 5 or 10. Among these 5 per cent or 10 per cent dusts may be found aluminum, lamp black, asphaltum, whiting, titanium oxides, gypsum, coke, and coal. On the other hand, some silicates, as exemplified chiefly by clays, may be rated somewhat higher and perhaps in the order of 15 per cent to 20 per cent, possibly because of the content of free silica admixed with the silicates, and possibly from actions within their own rights. Possibly, glass dust should be placed in this category rather than elsewhere.

From this concept that most dusts are only about 5 per cent as dangerous under industrial conditions as is quartz silica, it becomes advisable to abandon such outmoded terms as siderosis, aluminosis, chalcosis, byssinosis, anthracosis, as descriptive terms of significant pneumoconiotic disease.

Asbestosis as one of two outstanding industrial fibrogenetic lung diseases must here be dismissed with the cursory statement that its clinical course, its x-ray manifestations, and its association with tuberculosis are all quite dissimilar to those characteristic of silicosis.

The period of exposure requisite to the production of a demonstrable silicosis varies from a few months, such as two or three, to a lifetime of seventy years. Rarely, when the exposure is to essentially pure

quartz silica, in minute particle size range, an acute silicosis may be brought about which is atypical as to its clinical course, and particularly as to its appearance on the roentgen film. Such were some of the cases in the West Virginia holocaust; such also characterized some of the cases in the New Jersey outbreak occurring five or six years ago. In the causation of the more nearly typical form of silicosis, the period of exposure is likely to lie between seven and twenty-five years. The time element is greatly influenced by the percentage of free silica in any dust, the size of the particles inhaled, the hours of labor, the arduousness of the task, the age at which the worker entered the trade, the size and shape of the upper respiratory tract, particularly in respect to the vibrissæ, and, to a slight extent, by the race. Every one of these points might be made the basis of extended discussion. However, only one statement may be made with reference to each.

Some other minerals associated with the silica dust appear to retard the rate at which silica exerts its action, among others, iron oxides, gypsum, some clays, and possibly alkalis, although the last is disputed.

The size of harmful quartz particles is believed regularly to lie below 10 microns, and probably below 5. Obviously, the size must be such as to pass through the smallest entryway into the lung sacs. Also, the size must be such as to permit phagocytosis, although this last statement may be open to question.

Long hours of labor, particularly when associated with hard physical tasks, may increase both the depth and rate of breathing and remarkably increase the amount of dust entering the lung. Due to fatigue, the last hour of any work day may at times lead to the inhalation of as much dust as all the preceding hours during that period of work.

The probability of acquiring silicosis increases inversely with the age at which work was begun in any dusty trade. It follows that a youth beginning employment at sixteen is far more likely to acquire silicosis, other things being equal, than a workman who enters the same industry at forty. This statement is so true that if all of us were to live a lifetime of 150 years or thereabouts, probably most of us would acquire silicosis from ordinary exposures — from streets, schools, homes, farms, dust storms, et cetera.

Sex appears to play no part in susceptibility, although silicosis in the female is rare because of failure to enter the dusty trades. The negro is perhaps *more* susceptible than other races, while the northern European is by some regarded as *less* susceptible than other racial types. This also is disputed.

Of more importance possibly than any other factor except exposure to silica dust itself is previous exposure to less harmful dust. When a workman in a silica-using industry earlier has been employed as a coal miner, glass worker, gypsum worker, or as a worker in almost any other dusty trade, he appears prone to acquire silicosis in a shorter time and under conditions of less exposure than is true for a man without such history. This is not in conflict with the prior note that the simultaneous breathing of mixed dust apparently tends to retard the action of silica under some circumstances.

The very interesting chain of events following the arrival of silica in the lung sacs is a matter for special presentation by those who follow in this symposium, particularly the pathologist and roentgenologist.

At the outset of a limited discussion of the clinical manifestations of silicosis, it should be emphasized that much less reliance is to be placed on such features than upon work history, x-ray examinations and autopsy. Well-established typical silicosis as demonstrated by the x-ray may be found in a workman without any complaint of discomfort and who, from physical examination, presents only meager evidences of abnormality. On the other hand, symptomatology and clinical examination may be of great worth in differentiating between simple silicosis and silicosis complicated by other affections, usually tuberculosis or other infections. The cardinal symptom of silicosis is shortness of breath. The cardinal sign is diminished chest expansion. In the early stages of this disease the silicotic tends to put on weight, which possibly is due to self-limitation of work exertion. Should he fail to put on weight, secondary infections should be suspected. The demonstration of silica in the urine on a qualitative basis is of no value. All persons present silica in the urine from the ingestion of this substance in food. Quantitative determinations may be of some worth.

Pain in the chest or history that pain

has been present is common. Pain when present is more often localized in the mid-portion of the anterior chest, but may be anywhere. In those patients suffering from dyspnea, dizziness may be encountered. When marked fatigue or weakness is described by the silicotic, at once suspicion should be developed that secondary infection is present. Occasionally fatigue may arise from profound dyspnea and may not be present when dyspnea is not marked. Night sweats point to infection, as does also elevated temperature, which significantly is absent in simple silicosis. When sleeplessness arises it is usually associated with unfavorable progress. Sleeplessness may be associated with coughing, but, on the other hand, coughing is not of universal occurrence in silicosis.

On physical examination the respiratory rate is likely to be noted as increased, but not markedly so. The chest appears to be fixed and on palpation is lacking in resonance and elasticity. The information obtained through auscultation, percussion, and other determinations usually fails to provide any true concept of the pulmonary condition. In part this is due to the uniformity of change throughout the lungs, and, in part, possibly is due to a periphery of emphysematous tissue, which tends to mask evidences of deeper-seated conditions. The possibilities for confusion are but emphasized by the observation that a marked degree of simple silicosis may evince practically no evidences of deviation from the normal, while in the very early stages some cases may present rather marked departures.

Silicosis is prone to be associated with tuberculosis, and, in the absence of tuberculosis or other infection, silicosis readily demonstrated by the x-ray may be quite free from disabling capacity. Silicosis may activate antecedent tuberculosis, giving rise to the term tuberculo-silicosis, or may be followed by tuberculosis, leading to common usage of the term silico-tuberculosis. It has been observed that silicosis associated with tuberculosis is of low infectivity, and that the families of silicotics may not show a higher frequency of this disease than those of workers in non-dusty trades. However, this matter might well be the objective of further investigation.

Thus far in our discussion we have considered silicosis as a precise entity likely to

present the same features in victims for all trades where exposure may be provided. This is not exactly true. For some unknown reason, the silicosis appearing in different trades is slightly different, particularly in its capacity to produce disablement. The foundry-worker at 45, with a moderate degree of silicosis, probably may finish out his work span without his silicosis reaching a disabling stage. This is less likely to be true of the gold-miner in Canada or the sand-quarrier or the sand-blasted. In general, however, it must be recognized that silicosis, once inaugurated, tends to progress, and practically never recedes. The differences mentioned as characteristic of certain trades are largely ones of rate of progress.

Years after the cessation of exposure, silicosis may put in its first recognizable appearance. An interval of seven years is not remarkable.

The average case of well-established silicosis, such as represented by the onset of disability, rarely lives more than five or seven years, and in the great majority of instances death may be attributed to tuberculosis. Cardiac involvement is not prominent as a direct result of silicosis, but pneumonia superimposed on silicosis is of common occurrence.

Medicine is confronted with unusual difficulties in establishing the degree of disability in silicotics. Accordingly, difficult problems center about the management of the silicotic as a worker. A moderate degree of silicosis is no bar to continued employment, provided further exposure is eliminated. However, in every instance, the victim of simple silicosis is a potential victim of tuberculosis. Upon the advent of tuberculosis naturally the medical management is closely related to that of tuberculosis unassociated with silicosis.

Mindful of manifest shortcomings of a discussion of silicosis so limited as this has been, an attempt at amends is made by directing the attention of those who may be interested to two recent publications. First, a book entitled "Industrial Dusts," by Drinker and Hatch, published by the McGraw Hill Book Company during the past few weeks; and, second, a smaller book entitled "A Second Symposium on Silicosis," growing out of an institute conducted in 1935 at the Trudeau School of Tuberculosis at Saranac Lake.

DYSTOPIC MALDEVELOPMENT OF GENITO-URINARY SYSTEM

Case Report

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Developmental anomalies are prone to excite at least an academic interest and, if actually uncommon, are often worthy of being reported. When, however, an instance of maldevelopment excites a train of symptoms that create a minor problem in differential diagnosis and, further, are urgent enough to demand prompt surgical intervention, the problem has assumed a very definitely practical aspect.

The identity of the following case, an example of dystopy of ovaries and kidney, was not immediately clear, particularly in view of the intervention of torsion of the right ectopic tube and ovary which initiated symptoms that were not a little suggestive of strangulated hernia and were, in fact, interpreted in this light by referring physicians.

Report of Case

A female child, age eleven, admitted March 3, 1936, complained of pain in the left lower abdomen with concomitant constipation, nausea and vomiting. According to her mother the patient first became aware of pains in the abdomen four months prior to the date of admission (November 19, 1935). At that time she described distress in both lower quadrants and incidentally mentioned the presence of a "lump" in each inguinal region. Interestingly enough, neither child nor parent had been cognizant of any previous discomfort or discrepancy of contour. This original episode of pain of moderate intensity receded to the vanishing point within twenty-four hours, and the girl was without complaint until two weeks previous to her hospitalization, when the symptoms reappeared in a more severe and persistent form. Anorexia and relentless nausea intervened, and food was consistently refused. Despite the abstinence from nourishment, occasional vomiting was experienced, and marked, though not absolute, constipation existed during this period. Incidentally, in the opinion of the mother, the "lumps" increased definitely in size and were, at the time of admission, larger than ever before. No symptoms pertaining to pathology of the central nervous system, respiratory or urinary tracts were obtainable.

The birth weight of the patient was seven and one-half pounds—the delivery spontaneous and without incident, and the infant considered healthy and entirely normal. No serious previous illness had occurred, although she had been subject to mild constipation, as well as frequent attacks of sore throat and some of the contagious childhood diseases—namely, measles, mumps, and chicken-pox. She was the youngest of four children, having two older brothers and one sister, all alive and well, and, to the best of the mother's knowledge, without any developmental defect. The ancestral history was irrelevant. The patient was seen by several physicians and eventually by Dr. R. G. Tuck, whose interest awarded us the privilege of studying this case.

Examination.—Inspection revealed a well nourished white female child, who, though not acutely ill, was apparently in considerable pain. Her appearance and physical development coincided in general with that of the average vigorous girl of

eleven years. Proceeding with the examination from the head downward, one observed nothing of significance above the diaphragm, with the exception of evidence of early mammary gland development.

The abdomen was somewhat distended and tympanic but exhibited no areas of rigor or muscle spasm. Peristalsis was not evident at inspection, while the stethoscope revealed a somewhat diminished intestinal motility. Neither liver nor spleen was palpable.

In either groin a definite mass could be visualized, each of which encroached upon and distended its respective labium majus (Fig. 1). That on the right was ovoid, apparently measuring 6x7 cms., and presented a somewhat cystic character to palpation, which, incidentally, elicited acute pain. The mass in the left groin was smaller, perhaps attaining a diameter of 3 cms., definitely firmer than its counterpart on the right, and, though sensitive to manipulation, by no means exquisitely tender. Sudden increase of intra-abdominal pressure by coughing transmitted a definite impulse to each mass, neither of which, however, revealed added bulging at such times. Gentle attempts to reduce the swellings into the abdomen were entirely without avail.

The external genitalia were essentially those of a normal prepubescent female, and examination was not at this time conducted beyond the intact hymen.

On admission, the levels of temperature, pulse, and respiration were normal, and laboratory investigation revealed no discrepancy of urine, red blood cells, white blood cells, or hemoglobin.

Treatment and Progress.—In view of the findings above, we were of course aware that this was not ordinary bilateral hernia. Migration of gonads, probably ovaries, was seriously considered, with the idea of circulatory embarrassment being advanced to explain the severe pain and tenderness existing in the mass on the right. Incidentally and obviously it was this distress and the possible consequences thereof that necessitated prompt surgical intervention.

Under ether anesthesia an incision about 12 cms., in length parallel to and about 3 cms. above Poupart's ligament was made, and the anatomical structure and content of the inguinal canal exposed in the manner customary for right inguinal hernia. Careful dissection demonstrated a definite hernial sac, which penetrated approximately

to the level of and lateral to the deep epigastric vessels. The usual layers could be demonstrated in this sac, including definite, if atrophic, cremasteric fibers. Associated

adjacent to, but entirely separate from, the mesial extension of the fallopian tube. No vestige of uterus could be found.

In contrast to the right side, palpation of



Fig. 1. Pre-operative appearance of patient.

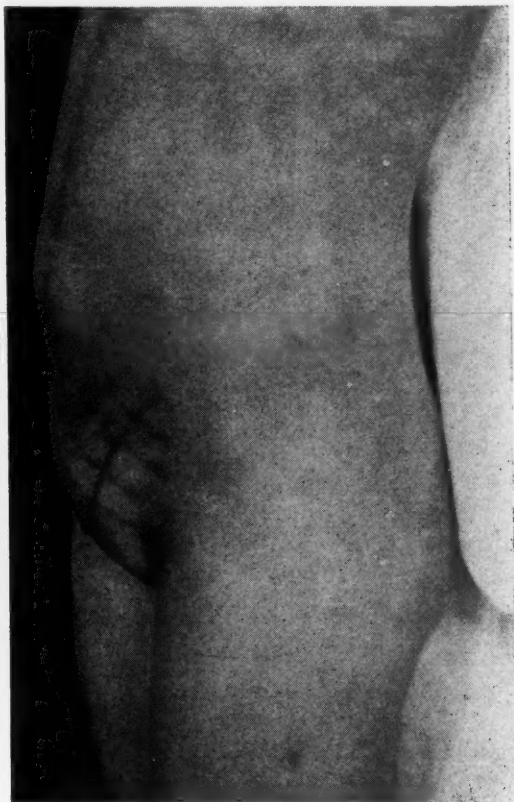


Fig. 2. Appearance on discharge from hospital.

with this sac and extending beyond the external ring was the mass, which could be readily identified as an edematous ovary, measuring about 5x3 cms. This was attached to a rather normal appearing Fallopian tube, which could be traced upward and lost at the internal ring. The distal portion of this tube was likewise edematous and was accompanied by markedly engorged blood vessels.

The sac was opened to the internal ring, following which the incision, including the peritoneum, was enlarged upward, thus facilitating exposure and inspection of the entire pelvis. It was now possible to trace the right fallopian tube inward, where it ended in a fibrous cord near the base of the urinary bladder. As this fibrous cord emerged from the internal ring to form the above described fallopian tube, one observed very definite torsion, apparently amounting to $1\frac{1}{2}$ revolutions, and providing ample explanation for the pain and swelling of the structures distal to this point.

The vagina was now demonstrated to be quite well developed, though deviated somewhat to the right, where it ended blindly,

the left portion of the pelvis failed to reveal evidence of any intra-abdominal portion of round ligament, fallopian tube or ovary. However, on the left lateral pelvic wall, in a position corresponding in the normal subject to the lowermost portion of the mesometrium, there was found an ovoid, retroperitoneal mass, of firm consistency and dark red color, measuring about 2.5x4 cms. In order to ascertain the identity of this structure, the peritoneum was incised, and a small biopsy specimen secured, following which procedure the continuity of the peritoneum was re-established.

As the next step, the right tube and ovary were relieved of torsion, replaced in the abdomen, and sutured to the lateral pelvic peritoneum. The incision was then closed, obliterating the hernial sac, and approximating the various layers in the manner customary for inguinal herniorrhaphy.

A similar, though shorter, incision was now made overlying the left inguinal canal, and the contents exposed. The smaller mass

on this side was found to consist of ovary-like tissue, measuring about 2.5 cms., attached to which was a rudimentary fallopian tube extending upward, but, unlike that on the



Fig. 3. Excretory urogram. The rudimentary left kidney in the bony pelvis and the distention of the right ureter and renal pelvis are well shown.

right, becoming completely lost at the internal ring. Due to speculation as to the possibility of male germ plasm co-existing in this mass, and to the fact that the right ovary had been preserved, it was decided to excise the left gonad and tubal rudiments for histologic study. Subsequent to this the sac was amputated and closed, and the hernial defect repaired.

The postoperative course was punctuated by a rather stormy period of respiratory involvement, which, however, subsided by the fifth day and was followed by a smooth convalescence, leading to discharge from the hospital on April 4, 1936 (Fig. 2).

Report of Microscopic Study.—Concerning the mass of tissues from the left inguinal region, the following report was submitted by Dr. Carl V. Weller: "(1) Ovary of normal size (for age of patient) with small follicular cysts. (2) Fallopian tube with dilated lumen. (3) Oval mass made up of smooth muscle and connective tissue of the general structure of round ligament. A narrow strip of connective tissue included a few coarse voluntary muscle fibers having the appearance of the cremasteric muscle of the male." Of the tissue removed from the retro-peritoneal mass in the left

lateral peritoneal wall, Dr. Weller reports: "Kidney cortex. This mass is evidently misplaced kidney."

Report of Postoperative Cystoscopy and X-Ray Study.—Previous to discharge, the patient was subjected to cystoscopy and ureteral catheterization, and subsequently to excretory urography. The former procedure revealed a healthy, well developed bladder with normal ureteral orifices. The right ureter readily allowed the passage of a No. 5 ureteral catheter into the kidney pelvis, from which negative urine was obtained. However, on the left, it was impossible to invade the ureter for more than one-half inch with any ureteral catheter or sound, which, of course, led to the conclusion that atresia or aplasia of the short left ureter had occurred. Excretory urographic study further verified the identity of the aberrant pelvic kidney tissue, and also demonstrated a well marked distention of the right ureter and kidney, which, considered in regard to the controversy concerning the etiology of dilatation of the urinary excretory structures, is of more than transient interest (Fig. 3). This, however, is hardly the place to delve into any such absorbing and complicated study.

Comment

In consideration of a case of this nature, it would seem logical to refresh our memory of the embryology of the urogenital system, but in the interest of brevity no extensive recapitulation will be attempted. Rather will we touch lightly on a few interesting features in their general relationship to fetal development, suggesting to the reader a more exhaustive perusal of any of the excellent treatises on human embryology. This case is in no sense one of either true or pseudo-hermaphroditism — that is, there is neither a co-existence of male and female sex glands (true hermaphroditism) nor other ancillary reproductive organs (pseudo-hermaphroditism). It was rather an example of deranged migration of normal germ plasm and subsidiary reproductive structures, accompanied by certain inevitable anatomical and physiologic defects. The presence of cremasteric fibers might superficially be construed as evidence of bisexuality, but on analysis it becomes clear that any structure, emerging from its intra-abdominal location and penetrating through the inguinal canal, must be accompanied by remnants of the tissues that are met by the vagrant organs, and that are simply vestments of the hernial protrusion.

Aplasia of the ovary is an extremely rare condition, and probably occurs only in non-viable monsters.² Improper descent may occur as incomplete penetration of the ovary into the pelvis, which predicates the existence of ovarian tissue above the brim of the true pelvis, a multiplicity of variations of which may be encountered, or, as in the case above considered, displacement of the ovary

into an entirely abnormal position. Displacement is said to arise from failure of the gubernaculum of the ovary to fuse with the uterus, or to incomplete fusion of Müller's ducts, with the consequence that the ovary descends through the inguinal canal into the respective labium majus.³ The failure of fusion of Müllerian ducts not only may allow the ovary to migrate, but necessarily results in complete inhibition of development of the uterus. (As in this case, the phrase "absence of uterus" may be only anatomically correct, as its primordia are literally present as the Müllerian ducts, which are represented by the completely separated fallopian tubes, ending blindly in the peritoneum behind the bladder.⁴)

The presence of a well formed vagina in the subject above considered is of no little interest, due to the prevailing opinion, voiced particularly by Felix,¹ that the vagina develops wholly from the Müllerian ducts. Such a theory would appear untenable in

explanation of this case, which strongly supports the idea expressed by other embryologists, that the vagina arises in part from the external genitalia.

In view of the fact that the kidney (metanephros) develops in closest relationship with the Müllerian ducts and the indifferent sex gland in the urogenital fold, it is not, in this instance, surprising that we should find some abnormality of the urinary system. In the majority of reported cases of defect of the reproductive organs, concomitant urinary tract malformation has been discovered.

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FEVER THERAPY*

Adaptation of the Vapor Bath, Electric Light Bath, Use of Oxygen, Carbon Dioxide from Dry Ice

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Fever therapy dates back to antiquity. The induction of pyrexia has unquestionably been practiced, though unknowingly, for centuries chiefly through the use of the ever popular "sweat bath." While the older procedures in this category still command the respect of the profession, clear cut advances in physiology have of late inaugurated a greatly improved and bolder technic for the induction and control of fever as a therapeutic agent. The introduction of modern appliances, especially of the electromagnetic type, has called for an intensive scientific investigation of the therapeutic properties of heat. This, more than new apparatus, is responsible for the surprisingly greater efficacy now obtainable through the intelligent application of heat, by either old or new methods of fever therapy.

There is perhaps no other condition indispensable to the welfare and the life of the organism, which is more efficiently and jealously guarded than the constancy of the body temperature. This is effected by the extensively distributed mechanism of heat production and heat elimination. All the major functions of the body including respiration, circulation, digestion, elimination, etc., are subject to the instant command of a great variety of nerve impulses bearing

chiefly upon the thermogenic and the vasomotor centers. The slightest change in the surroundings of the body which may influence these mechanisms, tends to disturb the thermostatic equilibrium of any part or of the whole body. In response, all the functions of the body are modified spontaneously or reflexly, in a degree adapted to the occasion. It is no exaggeration to state that anything which tends seriously to upset the thermostatic equilibrium of the body threatens life itself. At any signal of danger, the activities of the defensive mechanism of the body are spontaneously stimulated, for the instinct of body and mind is self preservation.

It is relatively difficult under ordinary

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conditions to so tax the mechanism of heat regulation that it will fail to maintain the body temperature within a plus or minus range of one degree above or below the accepted average of 98.6° F. Even then, marked changes may occur in the rate of the heart, respiration, oxygen absorption, carbon dioxide elimination, digestion, perspiration, glandular activity, and other metabolic processes, before the body temperature is affected.

When, for any reason, the temperature can no longer be held within the normal range, there occurs a systemic disturbance, the intensity of which is proportional to the rise of body temperature. It has been determined that for each degree F. of temperature rise above the normal there occurs an increase of 8 per cent or more in the total body metabolism. Therefore, a metabolic rate of plus fifty or over is to be expected during hyperpyrexia, when the body temperature is elevated to 105° F. or more. In addition to the clinical symptoms mentioned, marked changes in the blood are noted, the most significant of which are an increase in the leukocyte count and a marked increase in the oxygen content of the venous blood in particular.

The fact which the writer wishes to emphasize is that symptoms observed in pyrexia are the evidence of coördinated and intense defensive activities for the protection of the body. This is the proof that fever is primarily a protective phenomenon which, when intelligently used, has far-reaching therapeutic effects.

Until recent years, fever, no matter how induced, was feared and shunned. Febrifuges and antipyretic measures of all sorts were in great demand because fever was considered pernicious in disease. Today, the physician first looks for the probable cause of fever and attempts to remove it while he needs merely to control the body temperature when it is excessive. It is now frequently considered good practice to ignore fever and even to induce it for therapeutic purposes.

A number of old time remedies and practices are the result of the accumulated experience during many generations, and not of ignorance or superstition, as we may be prone to believe. The very old method of "breaking up a cold" by a sweat pack, hot tub or foot bath, illustrates the point. The wisdom of these practices is today fully con-

firmed by advanced knowledge in thermotherapy.

Today, bacteriologists, serologists, physicists, chemists, pharmacists, and specialists in physical therapy, vie with each other in devising or perfecting artificial and biologic methods of raising the temperature of the body for therapeutic purposes. The recent discoveries contributed by the electrical engineers have, more than any other, aroused the interest of the public as well as of the profession in fever therapy.

So spectacular indeed have been the results obtained from a variety of modern ways and means of inducing pyrexia that under the heat of interest promoted, the imagination and hopes of clinicians and manufacturers has now actually reached the stage of delirium. This will persist until the cold hard facts of experience have overcome the present period of excitement and established the therapeutic value and advantages of the agencies introduced in late years in this field.

Although it is not to be questioned that the modern electro-thermotherapeutic measures present distinct advantages, disinterested comparative tests have not shown that general pyrexia can be induced more pleasantly, more rapidly, more safely, or with better results by means of the high frequency current, the short and ultra-short waves, or by electro-magnetic inductors or condensers, than can be done by the use of older procedures.

Thermotherapy has from antiquity included the use of light, air, water, and vapor. It is only within recent years that electrical energy has also been made applicable, with both success and safety for thermotherapeutic purposes. The hopes of securing some specific effects, other than those that may be derived from the heating which such appliances have induced in a spectacular manner, have not so far been substantiated. Meanwhile, we do well not to be in haste to discard measures which have stood the test of time and have proved to be of considerable therapeutic value.

Objectives and Limitations

Artificial pyrexia of a moderate intensity, 103° to 105° F., is a safe procedure in properly selected cases.

Hyperpyrexia may be arbitrarily defined as a state of high fever with a body temperature of 105° F. (41.5° C.) and over.

It should be used with even greater caution than pyrexia, and administered under the supervision of the doctor assisted by a properly trained and experienced technologist.

Whether hyperpyrexia is ever justified, except in cases with a specific infectious etiology, still remains to be established. The heroic procedure which it entails presents elements of risk. It should therefore be confined to conditions known to be due to a specific organism, or perhaps a virus, which can be destroyed in situ at a temperature safely tolerated by the body.

The success with which hyperpyrexia can eradicate from the body certain specific micro-organisms such as the diplococcus of Neisser and the spirochæta pallida depends on: (a) the temperature to which the infected tissues can be raised with safety; (b) the increase of the bactericidal power which heat promotes in the blood and tissues; (c) the intensity to which the defensive mechanism of the body can be advantageously and safely stimulated. It may readily be admitted that the last is the main objective to strive for in the use of fever therapy whether or not actual bactericidal effects are also obtainable.

The cardinal points which are now apropos and which the writer wishes to emphasize are the following:

1. Heat is the ideal and the specific biologic stimulant of body functions. As a therapeutic agent, it has no equal.

2. Barring contraindications, artificial pyrexia is a safe, though powerful, therapeutic agent when intelligently induced. High fever becomes dangerous particularly when any part of the heat regulating mechanisms of the body is overburdened, exhausted or disorganized.

3. The maximum therapeutic dose of fever is that which brings about a maximum stimulation of the defensive activities of the body and of the bactericidal properties of the blood and tissues. It is doubtful whether body temperatures over 103° to 105° F. are ever necessary to secure these maximum desiderata, except when attempting to destroy certain infective micro-organisms or viruses.

4. Hyperpyrexia, especially when prolonged, though at first temporarily excitant, will, as a direct consequence, rapidly induce extreme depression and exhaustion. It may, as a result, become so detrimental as to

ultimately defeat its chief therapeutic purpose. The more intense the excitant effect, the greater will be the subsequent depression. Serious exhaustion may occur after a series of too severe, too prolonged or too frequently repeated treatments.

5. Time only will prove whether artificial fever therapy as generally conducted today is adding to its credit a greater number of cures in arthritic as well as in a number of other conditions, than have been obtained during the past fifty years by more conservative physical and other therapeutic measures.

The advent of electrothermotherapeutics has been so spectacular that it has awakened an unprecedented interest in the study and the use of heat. As a result, we not only possess a more efficient variety of agents but we have become far more intelligent, more competent and bolder in the therapeutic use of heat.

The new fever-inducing agents, which include the use of the short or ultra short wave, are the contributions of a class of investigators of high scientific attainment in the field of electricity. Their discoveries were quite accidental and so radically different from the methods in common use that, as a matter of course, their relative value and safety were to be established before they could be endorsed.

High hopes were entertained, at one time, that some inherent curative properties of the short wave might revolutionize the treatment of a number of disorders which heretofore had proven intractable to the old-fashioned applications of heat by conduction and radiation. Not only the new but the old also have since been submitted to a comparative study with a thoroughness and enthusiasm seldom, if ever, previously exhibited in the realms of physical therapeutics. It is indeed probable that its influence will spread and become the predominant stimulus which will establish a new era in physical therapy as a whole. At any rate, a constructive agitation of this order was greatly needed to keep physical therapy out of the constantly forming ruts which empirical beliefs are ever ready to cut in its pathway.

That the short wave and diathermy often present advantages over conductive or even radiant heat for deep and localized hyperthermia is admitted. Intensive local hyperthermia for bactericidal attempts in deeper

regions has its limitations from the standpoint of the maximum tolerance to heat of the living tissues. Contrary to the claims that vesical, vaginal or rectal irrigations at as high a temperature as 130° F. may raise the adjacent tissues to nearly the same level, actual thermometry discloses that such tissue temperatures are, quite fortunately, far from being approached by these procedures, especially when the circulatory activity of the parts is not materially impeded. Deep tissue temperatures of 110° to 112° F. have been obtained "double header fashion," by the local application of the short-wave or diathermy to subjects previously brought by other suitable means to a state of moderate general pyrexia. A temperature of 113° F. is believed to be the maximum point of tolerance in deeper tissues or organs. For this purpose, the use of electromagnetic induction currents in conjunction with a properly air-conditioned cabinet is probably ideal. Its chief advantage is a relative freedom of movement in a cabinet, the temperature of which need be only a few degrees above body temperature, less than 110° F.

As matters stand at this time, *the greater therapeutic successes which are generally believed to have been gained in late years as the result of fever therapy, whether through the use of merely modernized methods or by any of the latest inventions, should be attributed above all to improved technic in the use of heat.* But the technic perfected during the intensive study to which the newer methods and apparatus have been submitted, can now be profitably adapted to the use of any older procedures.

The Adaptability of the Incandescent Electric Light Bath, the Vapor "Russian" Bath, and Other Common Procedures for Fever Induction

Fever therapy is expensive because it demands a considerable amount of close attention from a physician and the undivided services, for hours at a time, of an experienced nurse or technician with a training above the average in physical therapy. If, in addition, new and unusually expensive equipment is called for, the advantages of this indispensable form of therapy will never be within the reach of any but the rich and the indigent cared for by tax revenues. It must be realized besides that a single equipment will take care of only one patient at a time and usually not more than

two each day. The needs are so great, and the means of many hospitals and other institutions for the sick are often so restricted, that the financial burden should be alleviated as much as possible.

There is to be found in many institutions a variety of facilities which with relatively little trouble and expense can be adapted for this purpose and which will prove efficient if intelligently utilized. Fundamentally, all that is necessary is to convey heat to the body, to stimulate its heat-producing mechanism, while at the same time adequately protecting the skin against the loss of the accumulating heat. The amount of heat necessary to induce fever is relatively small and the required temperature of the application need not be many degrees above that of the body. If the procedure is sufficiently moist to prevent evaporation on the skin or its surroundings, temperatures of 108° to 112° F. are ordinarily sufficient to raise the body temperature to 103° F. or higher in one hour's time. If desired, it is relatively easy further to raise the body temperature to higher levels.

General hyperpyrexia of any desirable intensity can be induced as rapidly and successfully by the older types of procedures as by the new. In fact, some of the most approved and efficient apparatus now in use for general hyperthermia do not in any manner depend upon the modern short wave or high frequency electrical apparatus but upon nothing else than heat applied in improved ways by means of the primitive hot air or vapor bath, or the ordinary electric light bath. These are readily modernized by being equipped with reliable thermometers or more pretentious thermo-regulating and recording devices.

The Incandescent Electric Light Bath.—

In a survey of the large variety of apparatus and appliances which for decades had accumulated in the physical therapy departments of the Battle Creek Sanitarium Clinic, several were found to be readily adaptable for fever therapy at little cost. Of all such appliances the Incandescent Electric Light Cabinet seemed to be the most promising for the purpose, chiefly because of the great penetrability of the radiant heat rays which it develops in great abundance.

This modern type of bath is the connecting link between the ancient and the ultra modern in the field of hyperthermia. It was

introduced by Kellogg forty-five years ago, at a time when a wave of enthusiasm in the medical profession had lifted hydrotherapy from an empirical to a scientific level.

The chief arguments presented in favor of the electric light bath centered first on the ease with which it could induce an abundance of perspiration in comparison with other types of heating procedures. It was also early observed that it induced an elevation of body temperature. This was not considered to be a fever of the ordinary type but an inoffensive "febrile state" which as stated nearly a half a century ago by Kellogg, the inventor, and the late Winternitz, exerted a strongly curative influence by quickening all the vital processes, promoting the production of antitoxins and stimulating in various ways the defensive mechanism of the body.

Nevertheless, a lingering sense of caution prevailed for many years and it was definitely urged that the electric light cabinet bath should be of short duration, not to exceed twenty minutes as a rule. Maximum therapeutic excitant effects were supposed to be reached in even less time than that, usually in eight to twelve minutes. The longer sances were to be prescribed only for eliminating or profuse sweating purposes. The determination, by the scales, of the amount of perspiration lost, rather than the elevation of the body temperature, served as proof of its therapeutic value. Fever was to be avoided or, if unavoidable, just tolerated. This perhaps explains why the fever thermometer was relatively little used in those days, even experimentally as well as during the administration of hot baths of various sorts for therapeutic purposes.

The writer has for the past two years made use of the electric light bath for inducing fever. The original horizontal type of cabinet (Fig. 1) proved to be very satisfactory for the purpose because the patient is treated, as is necessary, in the recumbent position. The cabinet is equipped with 86 60 W. carbon filament bulbs (74 in the space above the couch and 12 underneath). The carbon filament emits a greater amount of heat rays than does the tungsten. The lights are controlled in groups by means of five switches. This wattage is more than ample and provides a surplus for adequate and ready heat control. Danger of burns must be guarded against chiefly along the sides, the feet, and back,

especially where pressure may be an added factor to heat.

The best success was obtained when a thin flannel blanket was hung over a cloth-



Fig. 1. Horizontal electric light cabinet used for hyperpyrexia, showing a light flannel blanket supported over the patient by a cloth wrapped wire frame. Curtain drawn to show light bulbs.

covered wire frame (Fig. 1) covering the entire body. This diffuses the radiant heat, prevents excessive heat in spots and filters out the more intense "burning rays." This protection together with an occasional change of position entirely prevents the occurrence of burns. It is also the best way to guard against any part of the body's accidental contact with any of the bulbs. The temperature of the cabinet is registered by a thermometer protected from the direct rays from the bulbs, and ranges from 130° to 160° F. Hyperpyrexia requires an average temperature of not less than 150° F. The patient appreciates above all the freedom of movement allowed in such a cabinet.

The relatively high temperature which this type of bath requires is due to the dryness of the air, which considerably increases the rate of evaporation of perspiration and its consequent body cooling effect. Some

simple air humidifying unit would undoubtedly reduce, by twenty to thirty degrees F., the range of temperature necessary to readily induce pyrexia.

made with the head inside the vapor room showed that no material advantage, as to fever inducing efficiency, could be recognized. Furthermore, as might be expected,



Fig. 2. Steam room "Russian bath," built thirty-four years ago, adapted in 1935 for fever therapy, by installing a counterweighted sliding panel and a shelf support for the head outside of the steam room.



Fig. 3. Same as Figure 2. Swinging door open to show slab inside the steam room.

By way of suggestion, heating by means of electric "infra red" units might present certain advantages over the electric light bulb system, in case the construction of a new cabinet is contemplated.

The Vapor "Russian" Bath.—In a series of tests with all types of methods here mentioned, including the short and ultra-short wave apparatus, the writer made a study of the adaptability and efficiency of the vapor bath in hyperpyrexia. At the suggestion of the medical director, Dr. C. E. Stewart, and with the assistance of Drs. A. B. Olsen* and N. O. Byland, who supplied the clinical subjects for this investigation, a series of observations were first conducted using a 5x10 foot "Russian" or steam room built thirty-four years ago. Preliminary observations

the treatment is decidedly more unpleasant and trying, adding also considerably to the dangers of the ordeal in prolonged hyperthermia.

This small room is supplied with hot and cold running water, and steam which is delivered under a $2\frac{1}{2}$ x8 ft. slab, through a 2 or 3 ft. length of a $\frac{1}{2}$ in. pipe with a few lateral perforations, the end being capped. The flow of steam is controlled by a needle valve, operated from outside the chamber and preferably not in sight of the patient.

A swing door of ample width makes it easy to assist or carry the patient in or out of the room. A thermometer hangs inside where it can easily be read through the glass in the door. The only alterations, necessary to make this steam room ideal for fever therapy, were cutting an opening through the partition for the head of the patient, in-

*Dr. Olsen has given to this type of bath and to its use in fever therapy the appropriate and descriptive names of *vapotherm* and *vapothermia*, respectively.

stalling a small shelf for its support, and a counter-weighted sliding panel cut to fit loosely around the neck. A couple of turkish towels hung from a rod over the open-

en down, in a tumbler of cold water from which it is taken immediately before insertion and in which it is replaced the instant it is removed and read outside the

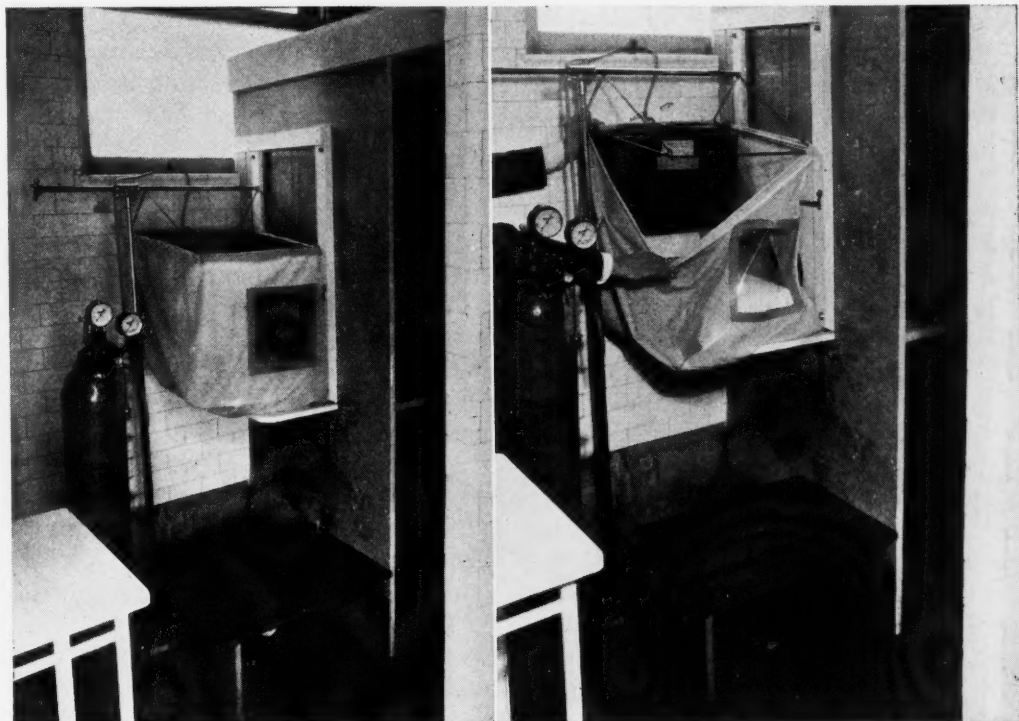


Fig. 4. Same as Figure 3. With the "open top" Burgess oxygen tent as adapted for oxygen and carbon dioxide feeding during fever therapy. The oxygen tent is readily transferred, if necessary, wherever the patient may be removed to continue the treatment. Requires no ventilating motor and no CO₂ absorption unit.

Fig. 5. The ice cooler. The oxygen is admitted at the top of the cooler, passes through the ice and into the tent. Carbon dioxide, if needed, is delivered from the dry ice in a fiber box, well wrapped in toweling and placed inside the tent underneath the cooler.

ing, and tucked about the neck as needed, completely prevent the escape of steam about the face during the treatment. (Figs. 2 and 3.)

Note also the window above the head for admitting fresh air from outdoors. An electric fan is of great assistance as a means of keeping the head cool and comfortable. One, or if necessary two, 2 in. thick sponge rubber mats on the slab, and an air pillow for the head provide a comfortable couch.

Needless to say that a constant watch of the patient's body temperature is of extreme importance. It is advisable, for safety, to secure this temperature during hyperthermia in two ways: by mouth or axilla, and also by rectum or vagina. It is necessary to take adequate precautions when a fever thermometer, which is of the "maximum" type, must momentarily come in contact with overheated air or body surfaces before or while it is being inserted, as is the case with the Vapotherm. All that is necessary is to have the thermometer, previously well shak-

steam room. If necessary, the overheated surfaces about the rectum or vagina can be cooled, especially before insertion, by means of a cold napkin held in place for a few seconds only.

Only a competent technician knows how to obtain and keep a record of the subject's temperature, which should be taken every fifteen minutes, or more often if necessary during the height of the fever. A considerable amount of money can be spent for various devices which not only indicate at any moment the axillary or the rectal temperature, but also that of the cabinet or of the enclosure in which the treatment is given. There are also more or less intricate thermo-regulators, indicators, and recorders working independently or interdependently of each other. When, for instance, some thermostatic device is set for the desired body temperature to be reached and maintained, the heat generating unit, whatever may be its type, is appropriately and automatically turned "on" or "off." These cost-

ly instruments, though desirable, are not indispensable, nor, as yet, absolutely reliable. Too much dependence should not be placed on them.

As a rule, the procedures which are the safest and most agreeable are those which permit the patient to move and change position, without fear of burns by contact with heat generators, electric light bulbs, or by poor contact with diathermy plates causing arcing.

Heat and pressure sores sometimes followed by necrosis, are best prevented by frequent change of position during treatment. In addition the assistant may enter the chamber at more or less frequent intervals and spend a minute or two in kneading, rather than rubbing, the limbs especially, and the trunk, front and back. This effectually relieves muscular spasms and alleviates general dysphoria. Careful deep kneading manipulations are of special value for reducing circulatory sluggishness and passive internal congestion, promoted by the prolonged heating of the skin and deeper tissue.

A rise of body temperature of four or five degrees F. is ordinarily obtained in the course of the first hour if the chamber is at a temperature of 108° to 110° F. to start with and gradually raised to 112° (rarely to 115°). This amounts to a rise of body temperature of one degree in each 15 minute period. Bath temperatures of 112° to 115° F. may, during the second hour, more than suffice to overstep the limits of safety. Speedier results are not obtainable with any other individual method, neither are they really necessary. Attention has been called in the first part of this paper to the use of the air-conditioned cabinet in conjunction with electro-induction or other short wave current. The vapor cabinet should lend itself nicely to such a combination.

Heat necrosis may result from long continued lying on the back in baths, cabinets, or packs though the temperature may be quite moderate, 110° F. or even lower. These injuries naturally occur more readily in the sacral and scapular region. They do not make their appearance as ordinary burns and blisters but as indurated welts of variable size which may necrose, especially if neglected. These are easily prevented during prolonged treatments. They should be given immediate attention and treated as you would a bed sore by protection against

mechanical injury, pressure, scratching, excessive rubbing, and, above all, protection against infection.

The Hot Tub Bath, the temperature of which is gradually raised from 100° to 106° F. or higher, will rapidly induce a fever of 105° F. or more. Comparative observations show that this procedure is the one which most rapidly tends to tax the tolerance of the patient. This is, most likely, chiefly due to the feeling of respiratory oppression caused by the hydrostatic pressure of the bath. Although it is best to avoid its use, if nothing better is available it should not be ignored for moderate pyrexia of relatively short duration. Because everywhere available, the hot tub bath is of value as a "starter" and when the patient's temperature has been suitably elevated in the tub, the stage of pyrexia can be continued by wrapping the subject in a hot blanket pack reinforced, if desired, by hot sandbags or the not altogether safe use of hot water bottles. Hot drinks help also.

The hot tub bath may at times be of service to merely introduce variety in a series of treatments which even with the most perfect and attractive devices become a tedious, trying and sometimes also a dreaded ordeal. A quite different, more pleasant and less taxing procedure interposed between more severe ones is to be preferred, at times, to a complete suspension of treatment.

The Bath-Tub Vapor Bath, as suggested by the late Dr. Winternitz of Vienna, can be readily transformed into a simple horizontal vapor cabinet by placing a board, freely perforated, raised three or four inches from the bottom of the tub on suitable supports. Through a piece of garden hose three or four feet long, attached to the hot water faucet, a small stream of very hot water is maintained and spreads over the bottom of the tub from the upper end towards the outlet, which is left unplugged. The water, if near the boiling point, liberates a sufficient amount of hot vapor to maintain the well covered tub enclosure at an adequate temperature for fever therapy purposes.

The Old Fashioned Blanket Pack as well as the electrically heated pack can also be made very efficient. The added advantage which this type of procedure presents as a means of restraint in mental cases should however not be abused. As complete a freedom of movement of both body and

limbs as allowable should be favored. To this end it is well to adopt some method of thoroughly wrapping each limb separately. This will add much to the comfort of the patient, reduce restlessness and prevent apprehension. Arm and leg boot-like slips pulled over the wrappings and safety-pinned at the shoulders and hips, serve nicely to hold things in place while allowing movements of the limbs.

The Mud and Sand Bath, the underlying primitive ideas conceived and exemplified in various ancient ways of sweating the body, could profitably be adapted in devising other simple and inexpensive methods of inducing fever. Even the hot mud bath as well as the hot sand bath should prove to be of practical application for this purpose, where such procedures are available under appropriate artificial or natural surroundings.

The Use of Salt, Oxygen, Carbon Dioxide, and Sedatives in Fever Therapy

Hyperpyrexia imposes a severe strain on many functions, and it is of the utmost importance, for safety, to make sure that the body machine is fit and adequately provisioned to speedily develop and expend a tremendous amount of nervous, glandular and other available energy.

During the stage of hyperpyrexia there occurs rapid consumption or loss of various substances which demand immediate adequate replacement. The most important are water, sodium, and in protracted pyrexia, oxygen, carbon dioxide, and sugar. The value of sugar to quickly and steadily replace the loss of energy, during various types of strenuous work, has long been appreciated. Likewise the replacement of water losses is imperative. The urgency also of replacing the mineral salts lost in excess by way of profuse perspiration has been recognized only in recent years. Deaths due to heat stroke have, for instance, been completely prevented during the construction of Boulder Dam as soon as the workmen, exposed to the tremendous heat in the canyon, were given a small amount of salt in their drinking water.

This same precaution in fever therapy totally averts most of the distressing symptoms which are sometimes observed in hyperpyrexia: muscular twitching, cramps, gastric distress, extreme depression, et cetera. These complications are now known to be largely due specifically to excessive per-

spiration and a consequent sodium deficiency in the blood and tissues.

Oxygen deficiency is always detrimental. It is imminently dangerous under conditions of stress. Sustained hyperpyrexia is the most severe strain which is ever imposed on the body for the definite purpose of arousing and maintaining, within limits of safety, an intense stimulation of all the processes involved in the defensive mechanisms of the organism. The oxidative processes may be more than doubled and a corresponding supply of oxygen must be steadily available. The urgency of maintaining this supply is far greater than that of sodium because there is no provision for the storage of oxygen for emergency use in the body.

While the importance of sodium should not be discounted, it is the opinion of the writer that anoxemia may often be responsible for several of the complications which have been ascribed to sodium deficiency. The symptoms in either case may be similar, but the following have for many years been included in the symptomatology of the anoxemia observed under conditions in which sodium deficiency could not be a concurrent factor: First, respiratory disturbances, excessive pulmonary ventilation with a resulting acapnia and alkalosis. Later, slowed and depressed breathing leading to acidosis due to accumulation of lactic acid and other products of metabolism, the removal of which is delayed on account of oxygen deficiency. Later on usually, passive congestion, cyanosis (which becomes marked when respiration, circulation, and blood pressure decrease), great restlessness, cramps, sensory and mental dullness, headache, drowsiness, muscular weakness, fatigue, gastro-intestinal disturbances, and periodic breathing. The after-effects may include muscular stiffness, peripheral neuritis, and, in severe cases, symptoms of nerve cell and cardiac degeneration. In some cases the anoxemia rapidly induces irremediable degenerative changes in nerve cells, which may soon prove fatal if oxygen feeding is too long delayed.

For several years it has been customary with us to give oxygen and carbon dioxide whenever symptoms of anoxemia and of respiratory deficiency are observed. It is recommended as a routine procedure in all cases of prolonged hyperpyrexia, not only when the fever is at its maximum but thereafter for one half hour or longer until all

the circulatory, respiratory, and other symptoms are quite normal again.

The oxygen tent has proved convenient for the purpose, though it may interfere with the free access to the patient when he needs the most attention. Sometimes, the patient objects to having the head confined in the tent but a little tactful persuasion usually wins coöperation.

The most satisfactory method of oxygen and carbon dioxide feeding in conjunction with fever therapy is by means of the "open top" or Burgess-Collins oxygen tent. Its chief advantages are: extreme simplicity, compactness, and adaptability. The open top allows free access to the head of the patient. No motor, no CO₂ absorber, just an "open top" oxygen tent. The latter is virtually an inverted hood for the head only. The air is cooled by means of an ice chamber placed in the tent at one end. The oxygen is supplied in the usual way from a cylinder, through a reducing valve and flow meter. In case of emergency get the oxygen from the cylinder in any way you can, even without a reducing valve (provided you know how to do it safely) though it may be wasteful of oxygen.

Figures 4 and 5 show the adaptation of the "open top" oxygen tent to the vapor cabinet and chamber. It is advisable to use oxygen freely at the start, for a few minutes (8 to 10 liters per minute, reducing to 5 or 6 liters or less, when cyanosis has disappeared). Economy of oxygen is less important, however, than assuring an ample supply for the patient, especially in view of the relatively short period of oxygen feeding needed.

Nasal feeding of oxygen into the oropharynx might be, by some, the method of choice.

An admixture of CO₂ with the oxygen is of great value for stimulating and normalizing both the pulmonary and tissue respiratory exchange. Stimulation of respiration by CO₂ must never be carried to excess in anoxemia, especially when signs of cardio-circulatory depression are present. To impose added burden on the heart in the presence of oxygen deficiency is always dangerous. This point cannot be over-emphasized.

Sedatives. — When pyrexia is induced mainly for the purpose of increasing the activities of the defensive mechanism of the body, sedatives are quite logically contra-

indicated and their use should be avoided. However, when hyperpyrexia is intended to destroy infective microorganisms in the blood or tissues, appropriate sedatives are usually indispensable for much the same reasons that justify their use in surgery. They should be used with caution because their effects on the behavior of the patient during treatment may lead to misinterpretation of symptoms which might otherwise serve as important danger signals.

The Use of Dry Ice as a Source of Carbon Dioxide for Therapeutic Purposes

The writer has, on various occasions for the past two years, resorted to "Dry Ice" as a source of CO₂. Its use in hyperpyrexia and for other purposes is extremely simple. Place ten ounces (300 gms.) of dry ice (broken into pieces the size of an egg) in a substantial fiber box. Cover, but do not seal hermetically. Wrap the box loosely in a piece of turkish or flannel cloth to avoid any possibility of direct contact with the skin or the rubber goods of the tent and place underneath the ice cooler. Carbon dioxide from 300 gms. (10 oz.) of dry ice will thus be steadily delivered at the gradually diminishing rate of approximately .75 L. per min. for the first hour, .62 L. for the second, and .50 L. for the third hour, according to the following table:

	Gms. per hr.	Gms. per min.	L. per min.
1st hr.	90	1.50	.75
2nd hr.	75	1.25	.62
3rd hr.	60	1.00	.50

Analyses have shown from 2 to 5 per cent CO₂ is maintained under average conditions of temperature in the tent during the first two or three hours with an initial supply of 300 gms. of dry ice.

The efficiency of this open top tent for administering oxygen or carbon dioxide is greatly lowered whenever the air, in or over the tent, is agitated by a fan or while reaching in to attend to the patient. Proper allowance must be made for such disturbances, unless avoidable. The character and the rate of breathing is the most practical guide for regulating the amount of dry ice necessary at any time and under varying circumstances. With the use of two or three dry ice boxes the amount of CO₂ can readily be modified to suit the immediate needs of the subject when respiration is to be stimulated in this manner.

Summary

The curative benefits derived from the use of heating or sweating procedures have been for centuries erroneously ascribed chiefly to the elimination of perspiration.

Advances in physiology now reveal that the outstanding therapeutic property of heat is due primarily to its highly stimulating effect on the "defensive mechanism of the body."

Good technic, based on up to date physiology adapted to the use of the vapor bath, the electric light bath or other equipment

already available in many institutions is unexcelled for pyreto therapeutic purposes.

Hyperpyrexia imposes a tremendous expenditure of energy on the organism and may at times demand the use of oxygen and carbon dioxide in addition to the prompt replacement of losses, particularly of water, salts and glycogen. The adaptability of the "open top" Burgess oxygen tent is illustrated.

Dry ice offers a very convenient and economical source of carbon dioxide when therapeutically indicated.

TRAUMA AS A FACTOR IN DEMENTIA PRECOX

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Although dementia precox is one of the earliest recognized psychoses, as well as the commonest in occurrence, it still presents many mysteries to the medical world. Whereas the appearance and subsequent course is commonly understood, confusion of divergent ideas concerning the etiology of this malady exists through the present time. Recent observations of some cases, which have been given little previous attention, tend to add to the complexities of the etiology. Trauma manifests one of these factors that must be recognized in the development of some cases of dementia precox.

Despite the fact that neurosis is a frequent concomitant of trauma, dementia precox, as well as all of the other psychoses, is uncommon. The following case presents the occurrence of trauma which acts as an important etiologic factor in the formation of dementia precox.

Case Report

E. P., white, male, age thirty years, a fireman by occupation.

Present illness.—The patient's medical records, as well as the history obtained from his wife and his fellow associates, state that the patient was in apparently perfect health up to the time of an accident on August 20, 1931, while performing his duties as a fireman. At that time, as a result of a collision between a street car and the fire truck he was riding on, the patient was severely injured. He was hurled from his position on the back end of the fire truck to the street. In the fall, he was rendered immediately unconscious as his head struck the pavement. While in this state, he was rushed to a local hospital, where he received first aid treatment. In addition to the bruises and cuts about the head, there was profuse bleeding from a third degree laceration of his upper lip, extending from the right lower end of the nose to the mid-section of the upper lip. This was repaired with four sutures. Roentgen rays were not taken of his skull at that time. He returned for treatment of his sutured lip, remaining off duty for five days during this time. No other medical treatments were rendered other than that for his wounded lip, which healed uneventfully. He was thereupon discharged from the hospital as cured. However, he complained continually of a persistent headache from the time of the accident.

Approximately one and a half years following the accident, in February, 1933, the patient's wife be-

gan to notice a sudden change in his personality. At that time he was showing signs of beginning fretfulness and nervousness. He began to read the Bible very ardently. He became jealous of his wife, whom he would slap, beat and threaten. At the fire station, he acquired articles which he claimed were his own personal property, such as a spade or shovel. He felt that everything belonged to himself. He became suspicious of people, believing they were persecuting him. Because of these sudden changes in his behavior, he was advised by superior officers to seek medical attention, which he refused to do voluntarily. However, after forced medical consultation, he was admitted on April 4, 1933, as a bed patient in Detroit Receiving Hospital, where he remained for approximately one month. Here the diagnosis of dementia precox was for the first time entertained. After a short stay of about two weeks at home, he was readmitted to the same hospital. He was then committed on July 24, 1933, to the Eloise Infirmary Hospital, at Eloise, Michigan. On entrance, because of the character of the head injury he sustained, roentgen rays of the skull were employed to rule out the possibility of a depressed fracture. These were reported to be negative.

Personal history.—The patient was born in the State of Pennsylvania on March 21, 1906. He completed his school education to the tenth grade. He first began to work at the age of sixteen. From that time on, he was steady in his employment, and well adjusted to his environment. He had been ambitious, energetic and sociable. He enjoyed mixed gatherings. Among other things, he was serious, thoughtful, unexcitable, truthful, obedient, and economical. He never drank heavily and smoked only moderately. There were no traces of venereal diseases in his history, nor any evidence of nervous breakdown or mental disease.

Family history.—His parents are both living and well, each at the age of fifty-eight years, without

a history of mental disease. There is no evidence of developmental mental impairment among his brother, sister, grandparents, aunts, uncles or cousins. No intermarriages have taken place among his blood relatives. The patient's wife, whom he married in 1931, and their four year old daughter are both normal.

Prognosis.—Since the patient's commitment to the psychopathic hospital in July, 1933, his prognosis became very grave. He has steadily lost ground with a rapid mental deterioration, dating from February, 1933, with simple character changes to the present state of apparently permanent mental impairment.

This patient presents the history of a person with a normal mental and moral character development. He represents a product of normal ancestors, and one whose blood relations and offspring are without any traces of mental disease. His present illness dates from August, 1931, at which time he received a head injury, as well as other less important injuries, while he was performing his duties. His complaint of a constant headache dating from the accident, gradually converged into the definite and final form of dementia precox, effecting a very grave prognosis. An injury to the head appeared to be the cause for the development of dementia precox in a person who up to the time of injury was apparently normal.

Some medical authorities express the opinion that there may be a causal relationship of injury to dementia precox in apparently normal individuals who would have been otherwise free of this malady. Furthermore, clinical experiences relate the fact that there is no definite time interval between the occurrence of the injury and the beginning symptoms of dementia precox. In some cases there is a considerable length of time before the symptoms may be clinically recognized following such injuries.

White⁷ states that dementia precox may follow an injury or trauma with the mental symptoms not occurring for a considerable length of time later. He points out that it is a psychosis in which the factor of deterioration is the precocious symptom rather than the individual. Furthermore, heredity possibly plays such an uncertain rôle, that he doubts that heredity has any influence in the predisposing to this affection. He shows that dementia precox has resulted in normal and brilliant people without any hereditary taint, with the physical force acting as an exciting cause.

Fuller² points out that trauma is an accepted factor as a precipitating cause of

dementia precox. He states that in its course, after apparent recovery from the primary effects of head injury, whether mild or severe, the patient may recover physically, but he may be left with a change of personality, with its subsequent development. The injury, therefore, would assume the initiating and responsible cause for this malady.

Kammon⁴ states that dementia precox may occur without hereditary trait, and that it may be predisposed by the exogenous factor of trauma, as well as by endogenous factors.

Meyer,⁵ in his discussion of trauma on the nervous system, divided the effects into two groups, the direct local and the subsequent psychotic groups. In the latter group, dementia precox may be found among the various psychoses, which, following trauma, may assume a permanent character. He points out that following some injuries to the brain an alteration in the personality occurs, with trauma acting as the precipitating factor. Thus a life that had been efficient up to a certain point, where it was punctuated by trauma, had fallen off in efficiency progressively since.

Glueck³ shows cases in which head injuries were followed by mental disturbances, among which are cases of dementia precox. The patients cited in these cases did not have mental symptoms immediately following the injuries, but, instead, months and years elapsed before psychotic changes were clinically evident. He pointed out that, since brain injuries may have such a detrimental effect on the patient's future life by the production of dementia precox, the injury assumes the cause of the definite liability from a medico-legal point of view.

Recent European medical literature further reveals the causal relationship of trauma or injury as a factor in precipitating this condition. Bertolani,¹ in an Italian manuscript, reports three cases in detail in which trauma is the responsible factor in the causation of dementia precox. Rojas and Belby,⁶ writing in Italian, discuss the rôle of trauma in the formation of dementia precox with the positive reference of trauma as the etiologic cause. In this article, they also cite Dumas, who reported sixteen cases, from a very extensive series collected from the ranks of soldiers, in which dementia precox resulted from trauma.

Summary

Although dementia precox is very common in occurrence, and is easily recognized by its appearance and subsequent behavior, it nevertheless presents, in its entirety, many baffling details. The etiology is as yet only incompletely solved. Adding to this complexity, trauma is found to be a factor in a small percentage of cases. A case was presented with the occurrence of trauma as an important etiologic factor in the development of dementia precox. Medical authorities, American and European, substantiate the opinion of the causal relationship of trauma in the precipitation of some cases. Furthermore, a considerable length of time may elapse from the time of the injury to the appearance of psychotic changes. Thus

there may be a latent development in individuals who were thought to have recovered physically from the effects of an injury. Therefore, trauma should be added to the etiologic forces of dementia precox, even though it is at present known to be infrequent in occurrence.

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AN UNUSUAL CALCULUS FORMATION FOLLOWING AN ACCIDENT

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It is common surgical experience that hemorrhage into the tissues is found at times to form the nucleus for the deposit of calcium salts. Various theories have been advanced for the formation of renal calculi. Probably the most common is infection together with endothelial cells which forms the nucleus for the deposition of normal salts of the urine. This is probably the usual cause for renal calculi, namely, infection, sloughing of the endothelial lining of the uriniferous tubules and then crystallization of the urinary salts. The following case seems to have a somewhat different origin, namely, injury to the kidney, which was productive of hemorrhage. The hemorrhage would appear to give occasion for the deposition of calcium salts which are undoubtedly augmented by deposits of urinary salts. It is difficult to be exact in regard to a possible complication of tuberculosis, considering the family history of this patient.

Case Report

The patient was a white man, nineteen years of age. He complained of hematuria following a skating accident.

Family history.—His father died of diabetes; his mother is living and well; one brother has active tuberculosis, another has spinal disease, a possibility of Pott's disease; and one sister is tubercular. Besides the usual childhood diseases, the patient had influenza in 1920; tonsillitis in 1922; he had a tonsillectomy in 1923. In 1927, he had an attack of rheumatism.

His present illness began in February, 1932, while skating, when he fell several times. A little later, he slipped on a tile floor with his skates on, falling backward. He landed on his right side, and although he felt no pain at the time, he ascribes his illness to this fall. Having lost his ordinary shoes, he was compelled to walk home on his skating shoes for a distance of six blocks. This, he believes, made his condition worse.

He had forgotten about the accident until later in the day, when, upon micturating, he noticed blood. As he was afraid to lose his position, he did not tell his family about this for two days. When the bleeding did not cease, he became frightened and consulted the writer.

Examination of the patient revealed tenderness on the right side on palpation. Urinalysis disclosed red blood cells, white blood cells and albumin. The patient was immediately ordered to bed; with ice packs on the right side; a hypodermic of morphine given, and was placed on a skimmed milk diet. The urine cleared up after three days, and as the patient felt better, he returned to work without consulting his physician. The exertion caused a return of the hematuria. He again became frightened and called his physician. He was again ordered back to bed; this time the hematuria lasted for nine days. In view of this fact, and the tubercular family history, I urged hospitalization, and if necessary operation, but the patient and his family refused.

The patient remained in bed for five weeks before he was allowed to leave it. He made an apparently uneventful recovery. He was on a restricted diet and cautioned against any type of exertion or work that necessitated any effort on his part.

At times, he complained of feeling an ache on his right side in the kidney region, if he stood in one position for too long a time, or if he exerted himself unduly.

TEMPORAL BONE INFECTION—GONNE

This continued until March 16, 1934, when the patient, after lifting some boxes, felt a sharp pain on the right side in the kidney region. This pain radiated downward toward the scrotum, and was of



Fig. 1. Note "dumb-bell" shaped calculus.

a dull ache in character. It lasted for about a week, and was followed by a burning sensation on micturition and occasional nocturia. He was again placed on a strict diet, and intravenous urographic studies were made at three different times.

The following x-ray reports are self-explanatory. Found: "Calculus apparently in the pelvis of the right kidney, also a bunch of what appears to be calculi. The plain, as well as the intravenous urographic plates showed a large renal calculus on the right side. Following the injection of the dye, the radiograph showed the left ureter but not the

right; evidently the right kidney was not functioning or only slightly so, and it appeared to be a hyper-function of the left kidney since the dye appeared in the bladder less than five minutes after the injection."

In view of the tubercular family history, surgical intervention was advised, as it was felt best to perform a nephrectomy and so spare the left kidney the same fate as the right, but it was refused.

The patient has had periods of good health, but on exertion he has aches and pains in his back.

Another x-ray was taken June 12, 1934, and the report of this study was as follows:

"There is an extremely large number of calcium deposits in the right kidney, and the right kidney is enlarged to twice its normal size. The findings are suggestive of a tubercular left kidney."

The next radiographic study was made on January 26, 1935, and the report follows:

"The calcareous deposits are still shown in the region of the right kidney. They have increased slightly in size since the previous examination."

At the present time, the patient complains of pain in the back, in the region of the right kidney, but that it does not radiate towards the front and downward as it formerly did. He still has attacks occasionally when he tries to lift anything and still refuses operative intervention.

In view of family tubercular history and the continued calculi process a nephrectomy is indicated.

The rôle that the accident, the blood, as a foreign nucleus for calculus formation, or the rôle that the tubercular condition played in the formation of these calculi, in this instance, at best would be speculative and therefore will not be discussed in this report.

The possibility of the other kidney becoming involved is but a question of time.

Attention is called to the "dumb-bell" shaped calculus in the accompanying illustration.

TEMPORAL BONE INFECTIONS*

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In order to present some facts concerning our experience in handling temporal bone infections, I must first present otitis media in infants. This is one of the most frequent infections of infancy and one often not diagnosed during the complete physical examination.

The presence of a middle ear infection can be detected only on the basis of objective signs. General pathologic signs of middle ear inflammation in infants are not definite as in later life. The structure of the eustachian tube being relatively larger and straighter, favors the development of otitis media in infancy. In most cases the otitis develops because the mucus forced through the tube carries infection. At times the mucus merely plays the rôle of a foreign body, causing an irritation. It becomes infectious when infection from the nasopharynx reaches it. The manner of nursing a child may be a factor in forcing infection into the nasopharynx by interfering with nasal breathing and consequently with swallowing. Whenever possible the head should be elevated during a nasopharyngeal infection

and during nursing to help drain the nasopharynx.

The presence of an acute middle ear inflammation is sometimes evidenced by the infant's lack of response to its surroundings, general weakness, sleeplessness, crying, refusing to take nourishment and failure to gain weight. If the child is four months old or more he may indicate the trouble by rubbing the ear or sticking his finger into it. Often swelling of the lymph glands in the vicinity of the ear is observed. Occasionally, a loss of one of the little crevices in the skin back of the ear, due to edema and

*Read before the Section on Pediatrics at the annual meeting of the Michigan State Medical Society, Detroit, September 24, 1936.

swelling, is noted. There is a definite rise in temperature, and nervous symptoms are frequently present. Even definite signs of meningitis are observed in some cases. Many of these cases have gastro-intestinal symptoms. These syndromes have been of interest to me for the past ten or eleven years. During that time quite a controversy has been waged and a mass of literature has accumulated. The profession has become sharply divided into two schools—one claiming there is no relation between mastoid infection and nutritional disturbances and the other holding that infection within the temporal bone is the dominant factor in the malnutrition and the direct cause of the accompanying diarrhea.

The first cases, in this country, showing this syndrome, were reported by Dean, at the University of Iowa, following an epidemic in 1921, and 1922. Infants with otitis media, diarrhea and intestinal disturbances died within twenty-four hours after myringotomy was done, and at autopsy pus was found in the mastoids.

Here at our hospital in 1925, we had an epidemic of nasopharyngitis in children, and infants particularly, accompanied by vomiting and other gastro-intestinal symptoms with a large percentage of otitis. Large numbers of infants were admitted to the Children's Hospital with histories of feeding disorders and malnutritations. They had diarrhea and progressive loss of weight despite good feeding. Many had antecedent or coincident otitis. Many of these cases died very suddenly; other cases improved upon opening the ear drums, only later to have a return of symptoms, return to the hospital and die before an operation on the mastoid could be carried out. Numerous postmortems showed purulent mastoiditis findings without ordinary clinical surgical indications, and sinus thrombosis, meningitis and encephalitis were common terminations. Dr. Witwer, in charge of the Pathological Laboratory, reported twenty-seven case not operated.

This led to a more careful observation of the ear conditions in infants suffering from diarrhea. From 1924 to July, 1926, we observed 520 cases of otitis in infants under two years of age. Of these, 174 were diagnosed as having mastoid infections and seventy-two had gastro-intestinal disturbances. These cases were seen with Dr. T. B. Cooley, the pediatrician in charge, and,

after careful otological and medical study, twenty-nine were operated for mastoid drainage. Twenty-seven of these cases were improved and twenty-two died. Of the twenty-three not operated fourteen died and nine lived to time of discharge. Later our percentage of mortality was much lower as we were operating these cases earlier. We were also using local anesthesia during operation as well as blood transfusions, both indirect and direct. Our operative findings convince us that in many cases we had overlooked this obscure type of infection. Occasionally the ear drums of these infants showed conventional signs of acute supuration though in the majority of cases redness and bulging of the drums are not present, both of these symptoms in the adult and older child the result of pressure. In the infant, however, the pressure in the middle ear is relieved by spontaneous drainage of the abscess in the ear through the relatively larger, straighter and shorter eustachian tube. The drums were usually dull gray with a thickened appearance. However, the mastoid and petrous apex is not so easily relieved and these two parts of the temporal bone must not be forgotten when examining a case of otitis media.

The prognosis of all infections of the temporal bone depends upon whether pus has a chance to flow out of the tympanic cavity. The sooner paracentesis is done, after diagnosis, the better. I do not, however, believe that clinical results in the hands of some experienced operators justify indiscriminate operation on the mastoids of every baby with ear infections and nutritional disturbances. The sane view to take of the mastoid, or I prefer to say temporal bone, is that it is a potential focus of infection and as such every case of acute otitis media should be followed up even after the drainage from the ear stops. In looking for foci of infection the history of previous attacks of ear infections and trouble should be noted when the history is taken. The classical symptoms many times are not present because the infant's resistance is so low that he is not capable of producing much local reaction. I believe that the question of which is the cause and which the effect is purely an academic one but that once definite infection within the mastoid has become associated with nutritional disturbances a vicious circle is established. The child cannot get rid of the gastro-enteritis or gain

weight because of the infection of the temporal bone, nor can he conquer the infection because of his lowered resistance. If the circle can be broken—medically by increasing his resistance to infection or surgically by eliminating the focus of infection, while he can still withstand surgical manipulation or procedure—he will recover; if not, he probably will die. If he lives without surgery he should be observed frequently for months.

I wish to here present an interesting instance showing what happened in a case of otitis media which was not followed up, since, due to the fact the ears had stopped draining, the ears were thought to have healed. The infant was seen by a physician three weeks before admittance to the hospital, at which time it was given ear drops. Two days later both ear drums ruptured spontaneously. The ears were irrigated with boric solution and at the end of 5 days both ears stopped draining. About this time the mother noticed swelling behind the left ear, followed in 2 days by swelling behind the right ear. The left ear swelling increased and became fluctuant. Meanwhile neither ear showed discharge. On admittance to the hospital there was a subperiosteal abscess over each mastoid and examination of the ear drums showed no bulging or acute inflammation but the drums appeared dull and thickened. The child was operated on the same day for a double mastoidectomy. Both mastoids were well broken down. Child was discharged 10 days later and the ears were again dry and the mastoid wounds were draining slightly.

Much has been written concerning the cellular structure of the temporal bone and its response to infection. We are particularly indebted to Eagleton, Glick, Kopetzky and Almour for the work done on this subject and the clinical manifestations of petrositis. However, it must be borne in mind that in classifying temporal bones as to types of anatomical structure, no definite criteria have been established.

In an article published two years ago, in which the Wittmaack theory of pneumatization of the temporal bone was quoted, I stated that the large pneumatic type of mastoid usually had a cellular petrous apex. The more recent research work on the structure of this bone has shown that extensive pneumatization in the mastoid is present much more frequently than pneu-

matization in the petrous pyramid and the apex. The usual classification of types of bone is sclerotic, diploic and pneumatic. The greater the degree of pneumatization in the temporal bone the greater is the facility with which infection spreads through it. It spreads between the various perilabyrinthine cells from the middle ear and mastoid antrum into the petrous pyramids by four or five pathways which have been described by different anatomists.

Batson, of Philadelphia, in his study of venous circulation of the head, has shown that one might consider the head and neck to be a vast communication of venous plexuses in which the scalp, the skull bone, the brain and mucous membrane, are embedded. The bony barriers, which are so real in surgical approaches, are valueless in resisting progress of infection by way of the veins. By means of a new method of injection his specimens reveal the close relation of the blood sinuses to the vessels of the brain and dura. He even believes it is useless to ligate the jugular vein in sinus thrombosis, due to the many by-passes for carrying infection. This has not been our experience.

When one studies, carefully, the work and theories put forward by Eagleton, and bearing in mind this work of Batson's, we cannot help but feel that infection of the temporal bone must be considered as a blood stream infection as well as a bone infection and it is quite surprising that complications of a metastatic nature are not more common. We know bacteriemia is not unusual in acute temporal bone infections.

Eagleton has shown that the apex of the very young infants is filled with red bone marrow. Mastoiditis, in infants, runs a course which is characteristic of a true osteomyelitis for it is a blood space pathological process, that is, suppuration within bone marrow spaces. This will also explain why the mastoid of infants may give rise to toxic symptoms, diarrhea and the like which do not occur in infection which is confined to suppuration of older or pneumatic bone. This infectious process in pneumatic bone is known as an osteitis and when destruction of cell walls takes place it is the coalescent type.

Sometimes an operation on a mastoid reveals little or no pus in the bone but the bone spaces are filled with granulations. This is the bone marrow method of con-

trol of infection and may have gone on to recovery without further bone destruction, the granulations representing the reparative process. Cure is obtained in over 80 per cent of all apical infections simply by drainage of the suppuration of the mastoid.

In many cases of osteomyelitis of the apex there are signs of venous sepsis—a chill or a chilly sensation at the time of invasion, followed by an up and down temperature. This leads to the diagnosis of lateral sinus thrombosis and the jugular vein has been ligated by the attending otologist in more than one instance. Exploration of the sinus fails to reveal a clot.

If the osteomyelitic focus suppurates and extends to the surface, the resulting abscess may be subdural or it may extend in the vault of the pharynx behind in the region of the eustachian tube.

Therefore, otitis media cases should be watched for evidence of pharyngeal abscess. Thus it may be stated that surgery of the apex resolves itself into two distinct lesions, namely: abscess formation which requires evacuation and infective thrombophlebitis of small vessels which requires rest and patient watching until it, in time, either undergoes resolution or breaks down into pus, when that pus must be evacuated, but it must be evacuated at a point farthest away from any inflamed vessels that enter the dura. If quiescent infected vessels that pass through the dura into the meninges are surgically injured, meningitis is apt to result. It is also well recognized that if a fistula can be found anywhere in the mastoid area, it leads into the part of the apex that is diseased and the enlargement of the fistula, in most instances, furnishes adequate drainage. These fistulas are frequently located during the complete mastoid operation. I like the word complete rather than simple mastoidectomy. I prefer to think of the simple mastoid as mastoid antral drainage without complete operation.

When dealing with a case of acute otitis media, of highly septic type, an x-ray study of the cellular development in the mastoid and petrous bone should be made as soon as possible to determine the type of bone structure.

Orbital and retro-orbital pain or sixth nerve paralysis, coming on at any time during this acute stage, should arouse suspicion of infection developing in the petrous cells. Continued pain, continued fever, continued

aural discharge or a reappearance of aural discharge after it has ceased, all indicate the necessity of further study. A specific type of facial paralysis, seen in no other process, has been described, a partial nonclosure of the lower lid during sleep, although the conscious ability to close the lid is not lost. This symptom is transient in duration.

Roentgenograms of the petrous bone should be taken in different positions to show the pyramid at different angles. In this way we gain as much information as possible of the progress in cellular obliteration or bone changes. However, the combined x-ray findings must be correlated with the clinical.

In defining treatment, myringotomy and complete simple mastoid are conservative methods, while radical mastoidectomy and some surgical approaches to the petrous apex are considered radical measures.

Granting that an adequate myringotomy has been done without relief of symptoms, then complete simple mastoidectomy should be performed. Following this, time should be given to determine what clinical results follow the complete simple mastoidectomy. Should the symptoms progress rather than subside, it is now time to do a radical mastoidectomy.

Should there be merely discharge, without pain, meningeal signs or perilyabyrinthitis in an individual whose hearing was normal previous to the acute middle ear infection, the important structures in the middle ear should not be sacrificed too quickly by radical operations.

I think the results of early operation in acute mastoiditis speak for themselves. Arguments in favor of early operations are that meningitis will be prevented and a chronic otitis media will be avoided. In reviewing our statistics and those of other writers, we are encouraged and convinced that early operation produces more complications and a longer period of convalescence. In most instances judicious delay is often more difficult to follow than hasty operation. Results certainly justify waiting for resolution or for a well developed coalescent mastoiditis, except in occasional cases with sinus thrombosis or beginning meningitis. When early, operation may be life-saving. There is nothing in acute mastoiditis which resembles the situation in acute appendicitis, where delay in operation may be fatal.

IDIOPATHIC HYPOCHROMIC ANEMIA WITH REPORT OF CASES*

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DETROIT, MICHIGAN

This disease, which was first noted by Faber in 1909, has been thoroughly described in recent years by Clough,² Dameshek,³ Witts,⁶ and many others. Ninety-five per cent of the cases occur in women between the ages of twenty and fifty.

The disease is insidious in its onset and the symptoms are those of a moderate anemia, such as loss of energy, increase in weakness, and fatigue. The average patient is ill five to eight years before treatment is instituted, although the condition may be preceded by an acute infection or pregnancy. As the disease progresses, palpitation, shortness of breath, tinnitus, vertigo, and exhaustion, and symptoms of chronic indigestion, such as loss of appetite, flatulence, eructations of gas, constipation, vomiting, abdominal pain and diarrhea may be present. These symptoms will cause a curtailment of the intake of fluids, meats, and vegetables. The patient at this time may complain of a sore tongue and mouth, sore throat, and dysphagia, the so-called Plummer-Vinson's syndrome. Nervous manifestations, such as irritability, fatigue, paresthesia of extremities and menstrual disturbances, may also make their appearance.

Examination usually reveals a somewhat yellowish and waxy pallor with dry and brittle hair. The skin is elastic and wrinkled. Nutrition may be good. The tongue usually shows papillary atrophy, and glossitis may extend to lips and cheeks. Systolic murmurs may be heard over whole heart, and blood pressure is usually low. The spleen is enlarged in a large percentage of cases, and the liver may be also enlarged. The nails are very characteristic. They show a loss of luster, are thin, brittle, and longitudinally striated. They may be loosened from the nail bed and assume the characteristic concave or spoon-shaped appearance.

The red blood count, as a rule, is between 3,500,000 to 4,000,000, with a low color index. The size of the individual red blood cell, its volume and saturation index is reduced. Red cells show an almost transparent colorless center with elliptical shapes. Anisocytosis and poikilocytosis are present. Reticulocytes are normal. Minimum resistance of cells to the salt solution is diminished, but maximum resistance is increased. Vandenberg reaction is normal. Icterus index is normal. A moderate relative or absolute granulocytopenia may be present. Blood platelets, bleeding and clot-

ting time are normal. Gastric secretion shows an achlorhydria in most cases, even after stimulation with histamine. There is usually a large amount of mucus present, secretion is increased in volume and ferments are reduced.

The disease is usually chronic and protracted in its course. There are no spontaneous remissions or exacerbations. It is rarely fatal and death is usually due to intercurrent disease. Some improvement tends to occur after the menopause. Autopsies are rare in these cases. Sternal puncture shows an increase of normoblastic tissue. Red hyperplastic marrow is found.

Case 1.—A white woman, age forty-eight, reported to the Clinic, stating that she had been well until about eight years previously, when she noticed a gradual onset of fatigue and loss of ambition. Even moderate effort produced severe fatigue. Three years later she noticed a change in her finger nails, which began to assume a concave appearance, this condition becoming more marked as the fatigue increased. During the last two years she has lost twelve pounds in weight. Eighteen months previously her menstrual periods had become less frequent and more severe, with the addition of hot flashes. These menstrual changes were also accompanied by difficulty in swallowing and a tightened, choking sensation in the throat. Her past history revealed that she had suffered from hay fever for many years, was chronically constipated, and had had a dilatation and curettage performed twenty years previously.

Physical examination revealed slight elevation in temperature, pulse ninety, and a normal blood pressure. She was rather undernourished. The skin presented a lemon color. The tonsils were of moderate size with reddened and injected pillars. The tongue presented a smooth appearance. While the heart was not enlarged, there was a systolic murmur at the pulmonic area. The nails were thin, lusterless, and were concave in shape. The physical examination revealed no other abnormalities.

The basal metabolic rate was minus six. Skin sensitization tests showed a four plus reaction to large and small ragweed, cocklebur, marsh elder, and wormwood. Gastric analysis with histamine stimulation revealed no free hydrochloric acid in the gastric contents. At the time of admission, the hemoglobin was 62 per cent, and red blood cell count, 3,670,000. Kahn and Kline tests were negative. Urine examination was essentially negative.

*From Alexander Blain Hospital.

IDIOPATHIC HYPOCHROMIC ANEMIA—FISHER

Chest and gastro-intestinal x-ray examination did not reveal any pathology.

The patient was given a general diet, and, for medication, sixty to seventy grains of reduced iron

diet with six to nine grams of reduced iron a day. She was also given several transfusions. She writes from out of town that she is feeling greatly improved.



Fig. 1. Hands of patient in Case 1.



Fig. 2. Hands of patient in Case 2.

a day. In the beginning she was also given some liver extract and later was desensitized with ragweed extract. Under this therapy she made marked subjective improvement and five or six months later her hemoglobin registered 84 per cent, with a red blood cell count of 4,300,000. Her finger nails also gradually assumed a more normal appearance.

Case 2.—A white woman, age forty-seven, was admitted to the hospital, complaining that, since she was twelve years of age, she had suffered with hives over the whole body when coming in contact with rabbits. The urticaria would be accompanied with swelling of the face and shortness of breath. She had also experienced swelling of the labia. For the last few years she had noticed the gradual onset of marked fatigue, numbness in the hands and feet, and a dark pigmentation of skin. Four years ago all the finger nails had come off, and after they had grown out again they began to assume a peculiar shape. She had, also, noticed the development of difficulty in swallowing. There was no loss of weight. Her past history was relatively unimportant. The physical examination showed a fairly well nourished middle-aged woman with a generalized icteric tint to skin. All the upper teeth were carious. Mucous membranes of the mouth and throat were very pale. The tongue was smooth with rounded edges. There were some tonsil remnants. There was some impairment of the percussion note at the left base with mixed râles in this area. The heart was slightly enlarged to the left, with a soft systolic murmur at the apex, not transmitted. A rather generalized slight tenderness was elicited over the whole abdomen. The labia were swollen and edematous. Nails were thin, pale, and presented a marked concave appearance. There were no other abnormal physical findings.

Laboratory examination revealed a normal urine, hemoglobin of 49 per cent, and red blood cell count of 3,560,000, with a normal white count. Blood smears showed marked anisocytosis and poikilocytosis. Kahn and Kline tests were negative. Gastric analysis showed no free hydrochloric acid in any of the gastric specimens. Protein sensitization tests showed that she was very sensitive to rabbit hair, moderately so to ragweed and maple. The x-ray of the chest revealed a small area of increased density in the left lower lobe with co-existing pleurisy in the left costo-phrenic angle.

The patient was placed on a general and adequate

The cause of this disease is unknown. The most plausible theory is that it is a condition which inhibits maturation of the red blood cells. It may be due to defective gastric secretion⁸ and inadequate diet and lack of iron, blood losses during menstruation,⁶ infections, or, possibly, constitutional defects. Murphy⁵ feels that the condition is a continuation of chlorosis which occurs in younger girls, whereas Underwood⁷ is of the opinion that the disease is not related to chlorosis because of the difference in ages and the fact that chlorosis is frequently associated with hyperacidity. A differential diagnosis is not difficult when the characteristic symptoms and signs encountered previously are taken into consideration. The treatment consists of large doses of iron, from six to nine grams of iron ammonium citrate or three to six grams of reduced iron a day. Maintenance dose is usually two to three grams of iron ammonium citrate daily. A general and nutritious diet is, also, necessary. After institution of iron therapy, the reticulocyte count begins to rise on the second to third day, reaches a peak on the seventh to tenth, and gradually falls to normal, being higher the lower the hemoglobin. In about two months the hemoglobin will reach 80 per cent. Symptoms disappear gradually, although achlorhydria and papillary atrophy of the tongue persist. The patient may not completely lose the symptoms. Relapses occur within six months or a year if iron is stopped. A satisfactory daily rise of hemoglobin is 1 per cent. Liver extract may hasten recovery. Hydrochloric acid is of very

little benefit except to check diarrhea and digestive defects.

Mettier, Kellogg and Rinehart⁴ claim satisfactory response from feeding patients predigested meals with hydrochloric acid and pepsin. Beebe and Wintrobe¹ noted no response from feeding beefsteak, predigested, with normal gastric juice.

Summary

1. Idiopathic hypochromic anemia is a definite clinical entity with characteristic signs and symptoms.

2. Its cause is unknown, but the disease is probably due to some process which prevents maturation of the red blood cells.

3. Two typical cases are described.

4. Treatment consists of adequate diet and large doses of iron.

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CASE OF CYST OF ROUND LIGAMENT SIMULATING INGUINAL HERNIA

Short Résumé of Literature

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While any kind of tumor of the round ligament is sufficiently rare to be of interest, true cysts of that structure are practically unheard of. By true cysts, I mean those of distinct origin, fluid-containing, and lined by columnar or cuboidal epithelium. Hence, it might not be amiss to give a short résumé of the literature, which is not very extensive. A search for cysts of the round ligament, or those simulating hernia, immediately brings to light many round ligament tumors, but practically all solid, and a large proportion of those endometriomata. A very few cysts of the uterus have been reported. These cysts, however, invariably have been due to breaking down and cystic degeneration of myomata or aberrant ovarian tissue associated with other cystic degeneration; showing fibrous, fibromuscular or lutein tissue, not epithelial lined, and not true primary cysts.

A few tumors of the round ligament, simulating hernia, are reported, but all of these are solid tumors. Sampson, in his very complete search of the literature with report of his personal experiences, stated that, in 1903, Emanuel collected seventy-five cases of tumor of the round ligament; fifteen of them were myomata and many "adenomyomatous." Taussig, in 1914, succeeded in finding one hundred thirty-five cases, thirty of which were adenomyomata, no mention being made of cysts of any kind. In eight cases of endometriomata of the round ligament, all showed other pelvic

involvement, and were not primary in the round ligament.

The nearest approach to a cyst of the round ligament which I am able to find, is one reported by Hamblen, of Duke University, which had its origin in the wall of the uterus at the junction of the round ligament and uterus and did extend for a short distance along the round ligament. Hamblen says, "Large intramural cysts arising in the uterus and lined by true epithelium are rare."

The same could well be said of true cysts of the round ligament; due to their similarity in structure and origin. Hamblen's cyst was lined by true columnar epithelium; but also contained a few decidual cells in its walls, there being a pregnancy in the uterus at the time. He further ventures the statement that its origin may have been from

the müllerian ducts. However, the controversy, whether wolffian or müllerian in origin is outside the scope of this paper. Kaulich and Gömöri, writing in the *Journal of Obstetrics and Gynecology of the British Empire*, states that in 1,290 cases of endometriomata mentioned by Polster only thirty-four were of inguinal (round ligament) localization, none of them cystic.

McNeil, of Belfast, reports a cyst of the round ligament, arising from the cystic degeneration of aberrant ovarian tissue, and associated with cystic change of the ovary on the same side. This cyst was of typical lutein lining, being filled with tarry material. In his textbook of Gynecology, Graves says: "Tumors of the round ligament are comparatively rare. Taussig's latest search of the literature reveals only one hundred forty-one; none of them is a true cyst. Cysts of the round ligament may arise from other tumors and if they are in the inguinal region may simulate hernia; for pathologically, solid tumors of the round ligament are prone to cystic and telangiectatic change, the walls showing the adenomyomatous structure, characteristic of the original tumor.

I am aware that the above résumé leaves many questions unanswered, but it must be so necessarily, due to the paucity of material available on round ligament tumors other than solid endometriomata. I was unable to find any instance of a round ligament cyst simulating an inguinal hernia, so I believe the following case will be of interest.

A white, American, unmarried woman, aged forty-three, entered, complaining of excessive flow at menstrual periods, with some intermenstrual bleeding, and a small bulge in the right groin. Her past history showed nothing of note except an attack of acute rheumatic fever at the age of eighteen, which had never recurred. Her present illness has extended over a period of about two years, during which time she has had very profuse menstrual periods, with some slight intermenstrual bleeding. The patient believed these to be manifestations of her menopause and did not consult a physician. The bleeding increased in severity and frequency and one year ago she consulted a physician, who, without examining her vaginally, prescribed ergot. This helped for some time, but the bleeding soon became severe again. Two years from the onset, the patient was also having some dyspnea and palpitation; she had also noted a small bulge in her right groin when she coughed or strained, which she thought was a rupture. There had been no appreciable loss of weight. The physical examination, at this time, showed a fairly well nourished, pale woman not acutely ill. The conjunctival and buccal mucous membranes were pale. Her thorax was symmetrical and lungs resonant; no râles were present. The heart was regular but fairly rapid. There was a soft systolic murmur at apex which was not transmitted. There was a harsher diastolic murmur in

the aortic region, transmitted half way down the left sternum. The radial pulses were equal. Her blood pressure was 130/60.

There was a firm, movable mass about twice the size of a grapefruit, palpable about four finger breadths above the symphysis and extending into the pelvis; it was not tender.

There was a small tumor which was soft and compressible, about the size of an English walnut, in the right inguinal region, giving an expansile impulse when the patient coughed or strained. Vaginal examination revealed a virginal introitus; free blood in vagina. The cervix was small, and open. The body of the uterus was uniformly enlarged to about eight times its normal size. It was smooth, firm, freely movable and not tender. The adnexæ were not palpable. The extremities showed pallor of finger and toe-nail beds. The reflexes were equal and active.

Laboratory: Kahn test, negative; red blood cells, 3,100,000; white blood cells, 9,000; hemoglobin, 30 per cent (Dare). Blood smear revealed hypochromia, otherwise not remarkable.

Diagnosis: (1) Large uterine myoma; (2) aortic regurgitation (rheumatic, fully compensated); (3) right indirect inguinal hernia; (4) moderately severe secondary anemia.

A midline suprapubic incision revealed a symmetrically enlarged uterus about eight or nine times normal size. Freely movable, definitely myomatous. This was removed supravaginally. Adnexæ were normal, ovaries showing involutionary change; not removed. In the right side of the pelvis, along the extraperitoneal portion of the round ligament, was a small, semi-turgid, globular swelling; apparently extending into the inguinal canal. This fluid-containing tumor was about the size of a small tangerine, being slightly ovoid, with the outer pole in the inguinal canal. Aspiration with hypo needle showed a thin, very dark, bloody fluid. The peritoneum was opened, and the cystic mass freed, by sharp dissection, down to the round ligament. Just as that structure passed through the internal ring. At this point, the cyst was intimately attached to the round ligament by a small, broad pedicle, which was ligated and severed. Cavity then closed with no drain. Abdomen closed in usual way, and patient made uneventful recovery.

Pathologic report is as follows: "A thin walled, cystic structure, contents partially evacuated. Sections show a thin, fibrous walled cyst, lined with low cuboidal epithelium, the wall well supplied by vessels."

Summary

1. A case of cyst of the round ligament simulating inguinal hernia is reported, occurring in a patient with uterine myoma.
2. Short résumé of literature is given.
3. Cysts of the uterus or round ligament are extremely rare. A true cyst of round ligament, simulating hernia, to the best of my knowledge, never having been reported before.
4. Practically all tumors of the round ligament are solid, the great majority being endometriomata, and usually associated with similar pathology in other pelvic organs.

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*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

HEALTH EDUCATION OF THE PUBLIC*

HEALTH education of the public may be accomplished by many methods, but the educator should be always the doctor. He knows more about the subject than any other person. Frequently he fails owing to the fact of inadequate pedagogic training. The non-medical educator is trained to teach but is not sufficiently schooled in the sciences which constitute medicine. Health and disease are antagonistic and have been so, as long as there has been life on this planet. One cannot fully comprehend health

if he knows nothing about disease and its prevention. We contend, therefore, that the medically trained person with fair teaching ability will accomplish more in the way of educating the public than a professional teacher with a small amount of medical knowledge. However, let us combine the two, the medical trained person and the educator.

Dr. W. W. Bauer and Dr. Thomas F. Hull have produced an excellent little manual* on the subject of Health Education of the Public, which is designed to assist the doctor to become in a real sense an educator. Many are the opportunities; noontide clubs, parent-teacher associations, women's clubs are all eager to hear health problems discussed. Foods, vitamins, balanced diets, diet in obesity, hot and cold weather diets are all subjects of interest; here the physician educator may be needed to correct or dispel the misinformation of the pseudo medical educator in some popular magazines, though we make haste to say that not all lay magazines are in this class. The majority are eager to publish the scientific truth on all these subjects and it is the duty of the medically trained person to furnish the information.

Health education may be simmered down to *matter* and to *method of presentation*. While the doctor has the basic training he may be not always in possession of specific data for a particular group or audience. Bauer and Hull discuss this subject in their chapter on Source of Materials. They also discuss the radio as a means of getting health information over to radio listeners. Valuable suggestions are made for the composition of radio addresses, particularly in regard to the advisability of using some words familiar to the physician but which are taboo to many of the laity. Advice is given against attacking nostrums and quackery over the radio, which attacks are likely to call forth counter attacks or replies which the radio is bound to permit to be broadcast.

The authors consider it definitely unwise to attempt a radio program with unidentified speakers. This statement is made in answer to objections by many members of medical societies, who consider it unethical for any member to receive the publicity which a radio address must afford. There are three technics for radio broadcasts of health information, namely, the lecture, the health interview and the drama. It is

*Health Education of the Public, A Practical Manual of Technic. By W. W. Bauer, B.S., M.D., Director, Bureau of Health and Public Instruction, American Medical Association; Associate Editor of *Hygeia*, *The Health Magazine*; and Thomas G. Hull, Ph.D., Director Scientific Exhibit, American Medical Association; Associate Professor of Bacteriology, University of Illinois, College of Medicine. 227 pages with 39 illustrations. Philadelphia and London: W. B. Saunders Company, 1937. Cloth, \$2.50 net.

almost needless to say that in addressing lay audiences, either directly or by radio, the physician speaker should avoid the technical language of medical literature.

Other mediums discussed are health exhibits. These are familiar to those who attended the Century of Progress Exhibition in Chicago, or the last annual meeting of the Michigan State Medical Society. Then there is the lecture platform. The direct address offers the greatest opportunity for the majority of physicians who are able to use it effectively. Yet it requires skill and experience in speech making. He who is gifted with a sense of humor will be accorded a ready welcome. The authors go into detail on such subjects as the preparation of pamphlets, the newspaper and magazine articles, the use of the lantern and books for lay education.

We know of no more widely useful book on the subject of health education and therefore commend it without reserve as a timely publication on a timely subject.

THE AMERICAN FOUNDATION

THIS JOURNAL contained editorial reference to the two volumes entitled "American Medicine, Expert Testimony out of Court," shortly after its publication. It is difficult to do the work justice in one or a dozen editorials. Since first reading it, we have perused reviews in numerous other medical journals as well as some in the lay press. One conclusion at least must be that the physician is truly an individualist. He does his own thinking, to a large extent uninfluenced by what others may think. The anonymity of his letters has afforded him a certain freedom which he has not hesitated to use. The reading of a number of reviews has convinced us that others have experienced the same difficulty as we have in commenting on such a heterogeneous mass of opinion. Another conclusion to which we are led is that over this broad land, no single solution of the problem of medical care can be made to fit all conditions. In other words, the wide variation in social and industrial life calls for special methods. The doctor in one of the southwestern states who makes visits all day without any hope of direct payment from his patients is justified in his plea for socialized or state medicine for everybody. In those states where people are

employed fairly regularly, there is no more reason for state medicine than for state fuel or groceries or clothing. Such is the expressed opinion of many others. We do not believe it would be popular with the industrious and thrifty citizen, who would object to a fixed tax on his income to defray the cost of medical service which he would probably not need. (The Capper Bill proposed six per cent.) Many feel that the state should reimburse the physician for the medical care of the indigent, not for the medical care of those financially able to care for themselves.

The care of infectious disease, including tuberculosis, is looked upon as a public health problem along with mental disease. These for obvious reasons are generally conceded as requiring some form of institutional care.

The institutional physician on full time naturally favors so-called state medicine. Our prejudices are born of our condition in life. Those individualistic doctors who prefer to stand or fall, depending upon their ability to appeal to patients, naturally resent the practice of medicine by the state in any except those instances in which institutionalized care is clearly indicated.

It has been pointed out that medical education has been socialized without any serious objection and that non-professional education as well is under state control. There are some objections, but we will pass them up. The financing of all educational institutions has become a serious problem, added to which the cost of socialized medicine would make the taxation load almost unbearable.

Speaking to a confrere after reading many excerpts of letters in American Medicine, Expert Testimony out of Court, he replied he had an opinion to offer on the medical situation. He was assured that whatever his opinion might be, it would be found somewhere between the covers of these volumes.

A few weeks ago we published the names of the writers from this state. Of course, it is rightly impossible to identify them but if the tenor of their letters is the same as we have heard them express themselves at medical meetings, there are but few dissenting views on the subject of state medicine.

While state or socialized medical care, as applied to those who can afford to pay, is the proverbial sore thumb at the present

time, the volumes deal in a most interesting way with numerous other subjects such as medical education, specialization, limitation of the number of medical students, et cetera.

We hope to return to these volumes to comment on other phases of the testimony, which we may do freely, since it is out of court.

AND NOBODY DOING ANYTHING ABOUT IT

WHEW! It's hot! For many, the year may be divided into two seasons, a wet and a dry. The dry is that period of the year when one's neck moves freely in his collar and when one is spared the discomfort of mopping his brow. In Michigan, particularly the lower part of the state, June, July and August are months of sweltering, if not of heat prostration. It is the time of exodus from the cities for those not fastened to their jobs; a time when the fierce rays of the sun are reflected from burning pavements; of hot nights and hotter days, with occasional thunderstorms which sometimes afford a brief respite from the heat; the time when the weather forecaster is listened to. Twice a year he becomes a prophet, namely, during periods of extreme heat and cold. Sometimes he proves to be a false prophet. Perhaps he is not to blame. Nature at times can be very erratic, refusing to be bound by scientific rules. She has every one guessing and wistfully thinking, but as Mark Twain used to say, "Everyone grumbles about the weather, but nobody does anything."

We have no advice to offer. Old Doctor Samuel Johnson used to say men require to be reminded rather than informed, so we will remind our readers of the warnings of the health officers. Bank your fires; eat little and that, fruits and vegetables rather than meats; move slowly; stay in the shade if possible; metabolize slowly; bide the time, for cooler weather will be upon us—sometime.

WHAT'S THE USE?

LAST month has witnessed two daring spectacles that make us wonder what causes certain mental reactions in certain persons. A woman aviator attempted to fly the Pacific Ocean. The odds were dreadfully against her and she has not been heard of since. Is it possible that the demarcation be-

tween heroism and foolhardiness is scarcely perceptible? What would have been gained had she succeeded?

The north pole has long been the goal of explorers in the polar seas. In spite of the fact that the north pole has already been discovered, aviators from Soviet Russia have discovered over again the prized pole. But now that they have, is it worth all the renowned ambition? A British newspaper that concurs in our pessimism presents a graphic description of the pole sitters as follows:

"The Soviet expedition has now been there for two or three weeks, and the weather during their term of residence has apparently been about as beastly as it could be. It is not a matter of cold and frost; it is just abominably wet and even muggy. When it ceases to be muggy the wind roars and the rain pours into the tents where the Russian adventurers are vainly trying to dry their soaked clothing. Such is the summer of 1937 at the North Pole while the intrepid colonists rest damply upon an ice-raft floating above immeasurable miles of Arctic Ocean. One can only hope that science is duly served. Comfort certainly is not.

"Nor is there the least hope of any financial advantages to the totalitarian State whose flag has lately been hoisted over those inhospitable regions. Beneath the Arctic ice-raft (which according to some estimates is only about eighteen feet thick) there can be none of those metallic ores which Herr Hitler hopes to receive as a result of his unlikely conquest of Spain. There will be film and photographic rights and scientific observations as a result of this Polar occupation, but does any really determined dictator care two hoots for such immaterial contributions to the general knowledge of mankind? A number of drenching days on a thawing icecap—such is the immediate reward of occupying the North Pole."

JULIUS HENRY POWERS

An Appreciation

I MET him in his senior year at Ann Arbor, where he was on the student staff of Professor de Nan Crede who, more than once, commented on the excellence of Powers' work and his dependability.

Dr. Powers and I settled in Saginaw about the same time, where our acquaintance rapidly ripened into a friendship that continued until his passing a few days ago.

Throughout its long and notable history, the University Medical School never presented such a galaxy of teachers, clinicians and investigators as during Powers' student years. Vaughn, Cushney, de Nan Crede, Dock, Novy and Huber with Peterson, Canfield, Parker and Cowie just entering upon their work—all names to conjure with. Such was the atmosphere into which Pow-

ers was privileged to enter and his excellent pre-medical training, particularly in the Biological Sciences, together with a high degree of intelligence and fine intellectual honesty, fitted him for this unusual opportunity. Seldom have I met a man who exemplified to such a marked degree the subject matter of his training not only in its fundamentals, but also in its minutiae.

Dr. Powers was a successful practitioner in the best sense. His energy, devotion to his profession, insistence upon individual and professional progress and his meticulous care of his patients not only resulted in his own spiritual and intellectual growth, but also proved a constant stimulus to his professional associates.

He has a permanent place in that galaxy of great and earnest souls whose lives have set a standard for the profession they loved and served so well.

J. D. B.

The new Hygienic Marriage Law requiring all young people contemplating matrimony to submit to a blood examination before a marriage license is granted seems to be very popular—among newspaper editors. We surmise that all editors are married and that the law is not retroactive.

AMERICAN MEDICAL EXPERT TESTIMONY OUT OF COURT

Unfortunately, the implication in such a study (American Medical Expert Testimony out of Court) by an agency professedly interested in government, may not redound to the great advantage of the profession. Why, if we may emulate these books in proposing one more question difficult of answer, is it necessary to consider that medicine must be minutely examined as a phase of the study of government? Why, when there are so many other human activities causing actual hardship, suffering and even bloodshed, is it deemed necessary for outside agencies to delve into all the difficulties of modern medicine? Why, when medicine is surely, although admittedly slowly, putting its own house in order, cannot the profession itself be trusted to continue, as it always has, to provide better and better health for the people?

As such gratuitous studies go, however, this is by far the most readable and the most carefully presented. Fortunately, it is entirely free from the summaries, tables, figures and statistics which might have rendered it as sterile as a page from a book-keeping machine. It is composed of ideas, not conclusions. It answers nothing. It solves no problems. It raises questions and discusses them, but settles none. It presents much material which will require study for years to come.

It harvests no crop but rather plows the field, deeply in spots, superficially in others, and turns up soil which may provide the seed bed of changes which are to come. It contains such a plethora of

statements that, like Scripture, it will probably be quoted to many a purpose. And, in spite of a strong distaste for such inquisitions, this one is good reading.—*Northwest Medicine*.

DO NOT TAKE TO HYGIENIC MARRIAGE

It is not at all surprising to find that, with the advent of the new hygienic marriage law in Illinois, numbers of young people are traveling across the state lines in search of "cheap and easy" weddings in states as yet officially indifferent to the ravages of syphilis.

The same sort of thing happened in Connecticut after medical examinations certifying that candidates for matrimony were free from venereal infection became mandatory under the law.

But in the end the regulation worked out well, because a Connecticut wedding grew to have a special value.

It was a guarantee of safety from a fearful disease, both for the benedicts themselves, and for future children.

There is every reason to suppose that this will be so later on in Illinois, and in Michigan, especially after fugitive weddings begin to be suspect.

And they are bound to become so when the reason and necessity for hygienic laws are better understood among young people, many of whom now have little knowledge of the prevalence and devastating nature of the disorders from which the state is trying to protect them.

It is probable, too, that the time when all except the most backward states will have hygienic marriage laws is not far ahead. This in itself will put a blight on the fugitive marriage habit.—*Detroit Free Press*.

THE ENGLISH LANGUAGE SURE IS TOUGH

The English language, which appears to the manor born the most natural mode of verbal communication, evidently offers a great many difficulties to the foreigner who must learn it. We have culled the following specimen of orphan verse from the *Manchester Guardian* (author unknown).

A young man with plenty of dough;
Went out with his girl for a rough;
But the creek was so high
The girl said "Oh, migh!
I think we had better not gough."

But the young man replied with a cough,
That he never was given to skough,
And would swear that the barque
Was safe for a larque,
And he thought they had better be ough.

Then away through the water they ploughed,
Though the girl seemed considerably coughed,
And said that the motion
Was just like the otion,
Except that the waves weren't so loughed.

They came to a bridge and went through,
Where they had a most beautiful viough
Of the great water tower,
And they stayed there an hower,
(It was late, or they might have stayed tough.)

But at last, when they'd rowed quite enough,
They tied up the boat by a blough,
And ran up the road
To the lady's aboard
With a haste which made both of them pough.

And yet our language spreads!

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One day each week for eight weeks, beginning the week of September 13. The following subjects will be presented in each center.

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3. Benign tumors of uterus. Their differentiation and treatment.
4. Toxemia of pregnancy. Hemorrhage. Accidents.
5. Management of early syphilis. Syphilis of pregnancy.
6. Malignancies of the skin and mucous membranes. Demonstration of cases and treatment.
7. A key to the diagnosis of digestive complaints. The organic, reflex, systemic and functional disorders.
8. A discussion of the use and action of some of the newer drugs.
9. Acute and chronic prostatitis. Posterior urethritis. Newer methods of treatment.
10. Hypertension. A rational classification with newer methods of management.
11. Regulation of body fluids and the general care of children during acute illness.
12. The acute abdomen in childhood. The differentiation of abdominal pain in childhood.
13. Endocrinology. A critical survey of recently introduced products as applied to gynecological disorders.
14. The complications of acute suppurative otitis media. Facial nerve involvement. Intracranial complications.
15. Intestinal obstruction.

A program with dates and hours of the lectures and demonstrations in each center will be mailed soon to every member of the profession.

For information, address:

**Department of Postgraduate Medicine
University Hospital
Ann Arbor, Michigan**

President's Page

Medical Ethics

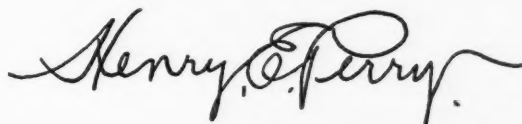
THE first code of Medical Ethics that we know of for the government of medical practice was that of Hammurabi, dated 2250 B. C. The monument on which it was recorded was discovered in 1901 on the Acropolis of Susa.

A second landmark, set up about 1800 years later, was to be found in the works of Hippocrates, the great Greek physician. These writings reveal a high conception of professional responsibility, noble moral ideals, and lofty aspirations for medical behavior.

At the beginning of the last century a publication appeared, "Percival's Code of Medical Ethics," published in 1803 and written by Dr. Thomas Percival. His writings were so good that they have served as a model for nearly all books and pamphlets published since that time on medical ethics. Even then with the rise of industrial manufacturing, Percival became impressed with the necessity of improving factory hygiene, and advocated regulations for ventilation, rest rooms and general cleanliness. In the code, Percival emphasized the combination of tenderness with steadiness in the management of charity patients. Discussion of the case before the patient, particularly when the outlook is bad, should be avoided, secrecy when required is strictly to be observed and females are to be treated with the most scrupulous delicacy. One hundred years later at a meeting of the American Medical Association held in New Orleans, May 7, 1903, a new code of medical ethics was drafted and in 1912 was revised to cover very completely the needs of modern practice of medicine.

The physician is one whose relation to life and health are of the most intimate character. It is fitting not merely that he should possess a knowledge of diseases and their remedy, but also that he should be one who may safely be trusted to apply these remedies.

Character is as important a qualification as knowledge for the successful physician, always keeping in mind the Golden Rule. For the average physician, medical ethics means only medical etiquette and there is usually as great a penalty attached to a transgression of one as the other. Medical etiquette is concerned with the conduct of physicians toward each other and embodies the tenets of professional courtesy. Medical ethics is concerned with the ultimate consequences of the conduct of physicians toward their individual patients and toward society as a whole.



President of the Michigan
State Medical Society

THE COST OF PRACTICING MEDICINE

By HENRY C. BLACK and ALLISON E. SKAGGS

Total Cash Income.....	\$10,062.84
Cash Expenditures:	
Rent	\$742.32
Drugs and Supplies.....	752.04
Salaries	984.72
Car Operation	418.32
Miscellaneous	694.92

Total Cash Expenditures..... 3,592.32

Net Cash Income.....\$ 6,470.52

THE above represents the average of fifty doctors practicing in the State of Michigan; selected figures taken from the largest to the smallest communities, and representing the large as well as the small incomes. In this group of fifty doctors are:

1. Eight men with less than \$6,000 per year gross incomes
2. Fifteen men with more than \$12,000 per year incomes
3. Twenty-seven men with incomes between \$6,000 and \$12,000
4. Seven men in towns of less than 8,000 population
5. Ten men in cities of over 100,000 population
6. Thirty-three men in cities between 8,000 and 100,000.

It might be interesting to note here that the large incomes are in no manner limited to the large cities, nor the small incomes to the small communities; in fact the average gross incomes varied very little regardless of location or size of the community.

We believe these figures should be of special interest to readers of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for several reasons:

1. They were taken only from members of the Michigan State Medical Society.
2. They were taken by us direct from the records in the various offices, and these records were kept in a manner so that the classifications were identical, and no adjustments were necessary to make them comparable.
3. They are all the complete 1936 figures, representing paid expenditures with

no study of accrued expenses whatever.

4. Although the study is not extensive enough to say that they represent *average* incomes, they do represent a cross section of the better practices, some of them better than average incomes, perhaps, and certainly better than average business procedures.

Our reasons for making the different classifications should be self-evident. Rural communities have different problems than the average size cities; the largest cities have different situations than the medium sized cities. So our first table represents the classifications of expense in relation to income with the comparisons based on size of community. Table I shows the number of cents out of each income dollar spent for:

1. Rent, including heat and light
2. Drugs and supplies
3. Salaries
4. Automobile operating expense, including gas, oil, license, insurance, repairs, but *not* including depreciation or replacements.
5. Miscellaneous, all other cash expenditures properly charged to the business such as Medical Dues, Professional Insurance, Stationery and Postage, Laundry, Journals, Telephone, et cetera, but not including interest charges.
6. Total

TABLE I.

	Less Than 8,000	8,000 to 99,000	Over 99,000
GROSS CASH INCOME	\$1.00	\$1.00	\$1.00
Cash Expenditures:			
RENT	\$.04	\$.07	\$.09
DRUGS	.12	.06	.08
SALARIES	.05	.11	.10
AUTOMOBILE	.04	.04	.04
MISCELLANEOUS	.06	.08	.06
TOTAL	.31	.36	.37
NET CASH INCOME	\$.69	\$.64	\$.63

In this table several interesting things are noticed:

1. Total expenses bear an almost identical relationship to income in the

medium sized towns and cities, dropping slightly in the smaller communities.

2. While rents and salaries were lowest in the small communities, drugs and supplies were the highest, making the totals about the same.
3. Automobile expense kept a most consistent relationship to total income.

In Table II we have used the same classifications but with respect to size of incomes:

TABLE II.

	Less Than \$6,000 Per Year	\$6,000 to \$12,000	Over \$12,000
GROSS CASH INCOME	\$1.00	\$1.00	\$1.00
Cash Expenditures:			
RENT	\$.08	\$.07	\$.07
DRUGS	.12	.07	.07
SALARIES	.07	.09	.12
AUTOMOBILE	.06	.05	.04
MISCELLANEOUS	.08	.06	.08
TOTAL	.41	.34	.38
NET CASH INCOME	\$.59	\$.66	\$.62

In this table we notice:

1. Total expenses vary more than in Table I, with the medium sized incomes showing the lowest percentage of expense.
2. Drugs and supplies are proportionately higher in the low income bracket.
3. Automobile expenses are proportionately higher in the low income bracket.

To get the most practical value from this summary we would suggest that the reader compare these figures with his own as follows:

Reduce your 1936 figures to percentage of total income for each of the six classifications made in these tables. For instance, if your cash income for 1936 was \$8,459, and your rent for the year was \$600.00, the figure to use in your table would be \$600.00 divided by \$8,459, or .07, being the number of cents out of each income dollar which you paid out for rent. Now, if you are practicing in a town of less than 8,000 population you would be paying almost as much as twice the amount of rent as the average of this group, whereas if you are practicing in a city of 60,000 population your figure would agree with that in the table. By such a comparison you can learn more about the relation of your own situa-

tion to that of your colleagues, and it was with the hope that these figures would be of value to you that this study was undertaken.

CORRESPONDENCE

POSTGRADUATE MEDICAL EDUCATION FOR THE ENTIRE MEDICAL PROFESSION

Dear Dr. Dempster:

I have been much interested in the article on Postgraduate Education in Medicine by Dr. James D. Bruce in the June issue of the JOURNAL and your editorial comments.

Dr. Bruce gives us an interesting and instructive background in the growth of postgraduate instruction, but I would emphasize the necessity of its embracing all the profession even in a fuller degree. Much as the administration at Washington claims only to "seek coöperation of the medical profession in caring for the medically poor," the profession fully realizes in view of recent attempts to tie medical practice up with the Social Security Act, that in the end it is the intention of the New Deal to determine and to control the acts of the profession not only in its relation to the patient but in the conduct of its own affairs. Call it what you will, some degree of regulation or regimentation will follow. This, I believe, is admitted by all concerned.

It has been the history in all largely populated countries that this governmental dictation tends to lower the standard of the medical art unless strong efforts are made to keep the profession abreast of the advances in medicine by offering graduate courses at medical centers.

The undergraduate's work is well supervised; but the graduate's work is of his own volition. There is no compelling force nor urge to improve himself except the recognition of his needs.

As you know, the Michigan State Medical Society and the University of Michigan offer courses in postgraduate work. Improvement in the methods of teaching goes with acceptance of opportunity by the graduate, measured in terms of attendance. It is not only our privilege but a duty we owe the profession and ourselves, to embrace this opportunity. The future offers much to the earnest student of medicine, if he will accept this challenge in the inevitable changes in the social order by better preparation of himself for service to the public.

It is hoped and expected that funds for the constant improvement of these courses may be forthcoming, so that the standard of the profession as a whole may be sustained.

Sincerely,

ANDREW P. BIDDLE.

Detroit, July 20, 1937.

WE STAND CORRECTED

To the Editor, JOURNAL MICHIGAN STATE MEDICAL SOCIETY:

In your editorial in the June M. S. M. S. JOURNAL on "Basic Science Boards," I notice that you did not mention Minnesota. That State passed a Basic Science bill in 1925 or 1926, and its enforcement has resulted in putting many quacks out of business and preventing the licensing of numerous cultists.

F. R. WALTERS, M.D.

Battle Creek, Mich.,
July 24, 1937.

DEPARTMENT OF SOCIETY ACTIVITY

L. FERNALD FOSTER, M.D., Secretary

Council Chairman's

- - - Communication

GOLDEN ASSET

WHEN checking over your income, bonds, real estate, et cetera, do not forget to put down your most valuable assets, the *Post Graduate Opportunities* offered the graduate of medicine in Michigan.

Do you realize that Michigan is the pioneer and leader in post graduate courses in the U. S. A.?

Much credit must be given to the University of Michigan and the Medical Committee on Post Graduate Education of the Michigan State Medical Society and especially to Dr. J. D. Bruce of the University of Michigan for the efficient and progressive courses given in Michigan.

Access to these valuable courses is given the general practitioner at his very door by the regional courses; the specialist and surgeon at the University of Michigan and Wayne University.

The public (meaning your patients) demands that you keep up with progress of medicine. How better can you do this than by the Golden Asset offered you?

The Post Graduate Committee of the Michigan State Medical Society, of which Dr. J. D. Bruce is chairman, has arranged these courses so that the field of medicine will be covered in four years.

The lectures in book form have been given to you for attendance. The extra cost of printing demands that a small fee be charged this year. In future years a fee for attendance may be required.

Will you feel that the course is of more value if you pay?

The Councilors of the Michigan State Medical Society are the chairmen of the Centers where the courses are given. Their value as Councilors is judged by your attendance.

Give your Councilor your support.

Stop and think. Are you giving adequate medical service to your patients? Do you realize the public knows what adequate medical service means? By giving it you

not only increase your value, but in the end will defeat the so-called State Medicine.

Post graduate work makes you adequate.

Value this among your assets and let the public know.

P. R. URMSTON, M.D.

Chairman of the Council

THE ANNUAL SESSION

NOW is the time to plan on entering the 1937 Annual Session of the Michigan State Medical Society. Beginning with a meeting of the House of Delegates Monday, September 27, the convention will be concluded Thursday afternoon, September 30. This year's session has been designed to serve in every detail, and to the greatest advantage, the physicians of the State Society and especially the general practitioner. To accomplish that objective, a number of innovations have been established.

The established practice of holding simultaneous Section Meetings in each of the Seven Sections of the State Society has been discontinued. Too frequently under that arrangement members were unable to avail themselves of the fine papers being presented in various and widely separated halls at the same hour. This year one-half day, Tuesday morning, September 28, will be devoted to Section Meetings. At this session each section will present specially prepared specialty papers and elect their officers. All meetings will be general in character and will include papers covering every phase of scientific medicine, especially as it affects the general practitioner.

Over three-fourths of the thirty essayists on the program of the General Sessions will be men from outside the State of Michigan. These men will represent the finest medical minds in the country. The outstanding medical men of our own state are thoroughly appreciated, but it is felt that we can avail ourselves of their contributions from time to time throughout the year.

A Technical Exhibit, second to none, will be arranged for your enjoyment and education. Seventy-one spaces are arranged for your comfortable perusal. Only accredited products and appurtenances of the

latest accepted development will be presented. These displays can be viewed by you at various times throughout the convention with no inconvenience or sacrifice of your time from the Scientific Program.

The city of Grand Rapids, with its great Civic Auditorium, makes it possible to hold the 1937 session under one roof. There will be no meetings or clinics held at widely separated locations throughout the city. One hotel connects with the Auditorium by a tunnel, thereby enabling its guests to live under the same roof with the convention activities. Other hotels are within a stone's throw of the Auditorium.

Let's make this a banner convention. A majority of our nearly 4,000 members should plan on attending this session, combining an enjoyable vacation with a splendid intensive postgraduate course and an abundance of fine fellowship.

Make your plans now to be present at the first session and stay through the last session. When you receive your official program notice that each session is filled with headliners. Can you afford to miss this Annual Convention which has been planned throughout for your education, relaxation and advancement in all phases of modern medicine?

Remember—Grand Rapids—September 27-28-29-30, 1937.

MSMS ACTIVITIES AND PUBLIC RESPONSIBILITY INCREASING

THE influence, prestige, and scope of activities of the Michigan State Medical Society continue to increase. More and more it is becoming the center of state-wide medical activity in education and service. The advice of the State Society is being sought in many quarters where medical service plays a part. As a quasi-public institution, the Michigan State Medical Society gladly accepts these added responsibilities, and gives generously of its technical knowledge to those who seek it. The following editorial from the *Detroit Free Press* of June 25, 1937, illustrates a recent case in point:

THIS IS PRACTICAL

The joint effort to improve medical service in the Michigan prisons and among paroled persons agreed upon by the Michigan State Medical Society, the State Prison Commission and the Parole Commissioner appears to be a practical and valuable departure.

As Commissioner Gellein explains it, the medical society agrees to provide internes at the prisons, and to furnish medical care for parolees in sparsely

settled communities where their examination and treatment is now something of a problem.

Under this arrangement young physicians will get valuable practical experience, particularly in dealing with social diseases, and the prison physicians will get aides who are eager to increase their knowledge and skill and can be counted upon to give the best service that is in them.

The benefits to prisoners are of course evident.

Commissioner Gellein considers the departure the most advanced move in penology the State has taken, and there seems to be no reason to dispute his estimate.

MINUTES OF MEETING OF MATERNAL HEALTH COMMITTEE June 23, 1937

1. The meeting was called to order by Dr. Alexander M. Campbell, chairman, in the Hotel Statler, Detroit.

Members present: Dr. Campbell, Dr. W. F. Seeley, Dr. H. A. Furlong, Dr. N. F. Miller, Dr. C. E. Palmer, Miss Goddard.

Members absent: Dr. Wiley.

2. Dr. Miller reported on a letter sent to the Executive Committee of The Council, Michigan State Medical Society, on the status of obstetrical teaching material at the University of Michigan. Dr. Miller is to follow up this letter.

3. Dr. J. D. Miller has left a half hour period on the program of the Michigan State Medical Society for the work of this committee.

4. Dr. Corbus of the Joint Committee on Public Health requested a statement from the chairman on public health lectures on prenatal and obstetrical care. The Joint Public Health Committee is willing to coöperate. This committee is to arrange speakers for the lectures on obstetrical care.

5. Dr. Miller reported a conference with the Federated Women's Club—Executive Officers on Maternal Welfare.

6. Dr. Furlong is to report on stillbirths and was authorized to take this matter up with Dr. Deacon.

A preliminary report was made to the Committee on the survey conducted on obstetrical care in Michigan.

Action on report of Dr. Palmer: Dr. Miller suggested that each member of the committee have a photostatic copy for study with remarks by Dr. Palmer. New tables are to be sent out in the same manner.

The meeting adjourned to meet at the call of the chairman.

HAROLD A. FURLONG, M.D.,
Acting Secretary

MINUTES OF MEETING OF LEGISLATIVE COMMITTEE July 13, 1937

1. *Roll Call.*—The meeting was called to order by Dr. L. G. Christian, Chairman, in the East Room of the Hotel Olds, Lansing, at 7:00 p. m. Those present were Drs. Christian of Lansing; L. H. Bartemeier, Detroit; Henry Cook, Flint; Wm. A. Hyland, Grand Rapids; Philip A. Riley, Jackson; Wm. E. E. Tyson, Detroit; Paul R. Urmston, Bay City. Absent: Dr. J. W. Hawkins, Detroit; and Dr. J. B. Bradley, Eaton Rapids.

2. *Annual Report.*—The meeting was called for the purpose of drafting the annual report of the Legislative Committee for presentation to the Council and the House of Delegates of the Michigan State Medical Society. Dr. Christian gave a detailed history of the bills introduced into the 1937 Michigan Legislature which were of interest to the medical profession. The Committee developed its Annual Report and recommendations.

3. *Adjournment.*—Meeting adjourned at 10:30 p.m.

NEW LAWS THROW RESPONSIBILITY ON PHYSICIAN

TWO laws of great general interest, passed by the 1937 Michigan Legislature and signed by Governor Frank Murphy, are the prenuptial physical examination act and the law permitting teaching of social hygiene in public schools. Both of these new statutes are of particular concern to the physicians of this state as the aim of their sponsors is to eradicate syphilis and gonorrhea.

In order to obtain a marriage license, both parties to the proposed marriage shall, within fifteen days prior to making application for license to marry, submit to medical examination for the presence of venereal disease. If the physician finds no such disease, he shall issue a certificate to the examinee to that effect on a form prescribed by the State Commissioner of Health.

A total of 47,023 marriages occurred in Michigan in 1936. If this figure remains constant, the prenuptial examination law will apply to some 94,000 persons each year.

The new statute throws a grave responsibility on the medical practitioners of Michigan who in the last analysis will be charged with proper administration of the law. If the work is done fairly and reasonably, much additional credit will redound to the medical profession. If abuses are allowed to creep in, ever so slightly, it is inevitable that the law will be repealed and the profession will lose part of its priceless prestige.

The Michigan State Medical Society urges all physicians to give careful study to this law and to follow its provisions with exactness and discretion.

ANTENUPTIAL PHYSICAL EXAMINATION LAW

MICHIGAN LEGISLATURE OF 1937

Introduced by

Messrs. Hamilton, Buckley and Walsh

Bill No. 459

House Enrolled Act No. 167

AN ACT to provide for an antenuptial physical examination; to provide a penalty for the violation of the provisions of this act; and to declare the effect of this act.

The People of the State of Michigan enact:

Section 1. All persons making application for license to marry shall at any time within fifteen days prior to such application be examined as to the existence or non-existence in such person of any venereal disease, and it shall be unlawful for the county clerk of any county to issue a license to marry to any person who fails to present and file with such county clerk a certificate setting forth that such person is free from venereal diseases. In order to obtain a certificate as required in this act, both parties to a proposed marriage shall, within fifteen days prior to making application for license to marry, submit to medical examination for the presence of venereal disease. All laboratory tests required by this act shall be made by the Michigan department of health or a laboratory which is registered by the Michigan department of health. Such tests as may be made by the Michigan department of health shall be free of charge. Laboratory tests shall include a Kahn test for syphilis, a dark field test where indicated and a microscopic test for gonococci when indicated, the specimens for which shall be submitted in the manner prescribed by the state commissioner of health. If, on the basis of negative laboratory and clinical findings, the physician in attendance finds no evidence of venereal disease, he shall issue a certificate to the examinee to that effect on a form prescribed by the Michigan commissioner of health. Such certificates of negative findings as to each of the parties to a proposed marriage shall be filed with the county clerk at the time application for a license to marry is made.

Sec. 2. Any county clerk who shall unlawfully issue a license to marry to any person who fails to present and file a certificate as required in this act, or any party or parties having knowledge of any matter relating or pertaining to the examination of any applicant for license to marry or clinical and laboratory tests taken by any party to a proposed marriage, who shall disclose the same, or any portion thereof, except as may be required by law, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Sec. 3. Any physician who shall knowingly and wilfully make any false statement in any certificate given by such physician under this act shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Sec. 4. Any person who shall violate any of the provisions of this act, for which a penalty is not specifically provided, shall be guilty of a misdemeanor, and upon conviction shall be punished as provided by the laws of this state.

T. THOMAS THATCHER,

Clerk of the House of Representatives.

FRED I. CHASE,

Secretary of the Senate.

Approved

FRANK MURPHY,
Governor.

SOCIETY ACTIVITY

TEACHING SOCIAL HYGIENE IN PUBLIC SCHOOLS

MICHIGAN LEGISLATURE OF 1937

Introduced by
Mrs. Belen

Bill No. 520
House Enrolled Act No. 180

AN ACT to amend section two of chapter twenty of part two of act number three hundred nineteen of the public acts of nineteen hundred twenty-seven, entitled "An act to provide a system of public instruction and primary schools; to provide for the classification, organization, regulation and maintenance of schools and school districts; to prescribe their rights, powers, duties and privileges; to prescribe penalties for violations of the provisions of this act; and to repeal all acts inconsistent herewith," being section seven thousand five hundred sixty-three of the compiled laws of nineteen hundred twenty-nine.

The People of the State of Michigan enact:

Section 1. Section two of chapter twenty of part two of act number three hundred nineteen of the public acts of nineteen hundred twenty-seven, entitled "An act to provide a system of public instruction and primary schools; to provide for the classification, organization, regulation and maintenance of schools and school districts; to prescribe their rights, powers, duties and privileges; to prescribe penalties for violations of the provisions of this act; and to repeal all acts inconsistent herewith," being section seven thousand five hundred sixty-three of the compiled laws of nineteen hundred twenty-nine, is hereby amended to read as follows:

PART II.

CHAPTER XX.

Sec. 2. It shall be the duty of boards of education in all school districts having a population of more than three thousand to engage competent instructors of physical education and to provide the necessary place and equipment for instruction and training in health and physical education; and other school boards may make such provision: *Provided*, That nothing in this chapter shall be construed or operate to authorize compulsory physical examination or compulsory medical treatment of school children. The board of education of any school district may provide for the teaching of health and physical education and kindred subjects in the public schools of the said districts by qualified instructors having a degree from a school of medicine, public health or nursing: *Provided, however*, That it is not the intention or purpose of this act to give the right of instruction in birth control, and it is hereby expressly prohibited to any person to offer or give any instruction in said subject of birth control or offer any advice or information with respect to said subject: *Provided further*, That any child upon the written request of parent or guardian, shall be excused from attending classes in which the subject of sex hygiene is under discussion and no penalties as to credits or graduation shall result therefrom.

This act is ordered to take immediate effect.

T. THOMAS THATCHER,
Clerk of the House of Representatives.
FRED I. CHASE,
Secretary of the Senate.

Approved
FRANK MURPHY,
Governor.

INAUGURATE SOCIAL HYGIENE LECTURES IN YOUR SCHOOLS

The Belen Act is another important step in the medical profession's drive against syphilis and gonorrhea. The new law permits the teaching of social hygiene in public schools by *physicians*. Officers of county medical societies should contact their school boards and school superintendents *at once* regarding the advantages of inaugurating such courses in the schools beginning in September.

The experience of county medical societies which have been sponsoring lectures on social hygiene in public schools during the past few years, as well as an outline of the lecture course, may be procured by writing the Executive Office of the Michigan State Medical Society, 2020 Olds Tower, Lansing.

The law was given immediate effect by the Legislature, in order that courses of lectures could be inaugurated with the opening of schools this autumn. Doctor, this is the responsibility of your county medical society to act NOW.

HEAR THE PARRAN LECTURE

"THE CONTROL OF SYPHILIS IN AMERICA"

Civic Auditorium, Grand Rapids, Wednesday, September 29, 1937, 8:00 P. M.

(In connection with Annual Meeting of the M.S.M.S.)

FOR PHYSICIANS AND THEIR PATIENTS

SOCIETY ACTIVITY

\$20,000,000 ANNUALLY FOR OLD AGE ASSISTANCE IN MICHIGAN

THE 1937 Legislature amended the Michigan Old Age Pension Law principally by reducing the age limit from 70 to 65 years and by appropriating \$10,000,000 from funds of the State of Michigan, to be matched by Federal funds, to cover the increased load. The Act was signed by the Governor on July 22nd.

The present case load in Michigan, at 70 years of age, is 36,000 persons (not families) who have been receiving from \$4 to \$30 per month. The present average grant is \$17.15 per month (based on a state appropriation of \$4,000,000 per annum, matched by Federal funds).

The approximate load in future, at 65 years of age, will be from 60,000 to 65,000 persons (not families). The average grant, it is estimated, will eventually be \$22 per month (based on the state appropriation of \$10,000,000 per annum, matched by Federal funds).

The revised act provides that the amount of assistance rendered an individual shall not exceed a total of \$30 a month. A large percentage of old age recipients in the urban centers of Michigan now receive the maximum sum.

Supplying emergency medical care to recipients of grants under the Old Age Assistance Bureau has been a big problem, especially in the cities. In the past it has been obtained from the ERA (which issues "Medical Only" cards to some old age pensioners); from county sources, mainly for hospitalization; and through the private charity of physicians.

The Michigan State Medical Society has been working on this problem and hopes that a solution will result from the deliberations of its Committee on Medical Economics. Welfare is still operating under the old plan, and will continue to do so until January 1, 1938, when the new Michigan organization goes into operation; the county administration will begin as of March 1, 1938. In the meantime, the whole medical welfare problem, including the rendering of emergency service to old age pensioners, is being analyzed by the State Society so that a workable program satisfactory to all can be presented to the Department of Public Assistance for development with the new system.

The revised Old Age Pension Law follows:

MICHIGAN LEGISLATURE OF 1937

Senate Bill No. 115

Introduced by Senators Brooks and Brake

Senate Enrolled Act No. 97

AN ACT to amend the title and sections one, three, nine, ten, eleven, thirteen, fourteen, fifteen, seventeen, eighteen, nineteen, twenty, twenty-one, twenty-two, twenty-three, twenty-five, twenty-six, twenty-seven, twenty-eight, twenty-nine, thirty-one, thirty-two and thirty-three of act number one hundred fifty-nine of the public acts of nineteen hundred thirty-five, entitled "An act to provide for the protection, welfare and assistance of aged persons in need and residents of the state of Michigan; to create within the state welfare department a bureau to be known as the old age assistance bureau to be under the supervision of the director of the state welfare department; to create county old age assistance boards; to prescribe penalties for the violation of the provisions of this act; to provide for the disposition of the moneys raised under the provisions of act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three, and to repeal act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three," to add one new section to said act to stand as section forty thereof; and to repeal sections two, four, five, six, twelve, sixteen and thirty of said act.

The People of the State of Michigan enact:

Section 1. The title and sections one, three, nine, ten, eleven, thirteen, fourteen, fifteen, seventeen, eighteen, nineteen, twenty, twenty-one, twenty-two, twenty-three, twenty-five, twenty-six, twenty-seven, twenty-eight, twenty-nine, thirty-one, thirty-two, thirty-three of act number one hundred fifty-nine of the public acts of nineteen hundred thirty-five, entitled "An act to provide for the protection, welfare and assistance of aged persons in need and residents of the state of Michigan; to create within the state welfare department a bureau to be known as the old age assistance bureau to be under the supervision of the director of the state welfare department; to create county old age assistance boards; to prescribe penalties for the violation of the provisions of this act; to provide for the disposition of the moneys raised under the provisions of act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three, and to repeal act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three," are hereby amended, and a new section is hereby added to said act to stand as section forty thereof, said amended and added sections to read as follows:

SOCIETY ACTIVITY

TITLE

An Act to provide for the protection, welfare and assistance of aged persons in need and residents of the state of Michigan; to prescribe the powers and duties of the state department of public assistance and the several county departments of public welfare with respect thereto; to prescribe penalties for the violation of the provisions of this act; to provide for the disposition of the moneys raised under the provisions of act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three, and to repeal act number two hundred thirty-seven of the public acts of nineteen hundred thirty-three; and to provide for an appropriation therefor.

Sec. 1. The administration of the provisions of this act is hereby vested in the several county departments of public welfare, under the supervision of the state department of public assistance, as herein provided.

Sec. 3. The state department of public assistance shall have power and authority to make such rules and regulations as are necessary to carry out the provisions of this act and for guiding and regulating county departments of public welfare. It shall prepare and have printed all blanks and books of record necessary, and supply each county department of public welfare with the same, to the end that a uniform system shall be employed.

Sec. 9. Old age assistance shall be granted to an applicant who:

- (a) Has attained the age of sixty-five years or upwards;
- (b) Has been a resident of the state of Michigan for five years out of the immediate preceding nine years, and continuously resided in the state of Michigan for a period of one year next preceding his application;
- (c) Is not at the date of receiving aid, an inmate of any public institution of an eleemosynary, custodial, correctional, or curative character, except in the case of temporary medical or surgical care in a hospital;
- (d) For six months or more during the ten years preceding date of application for relief, if a husband has not, without just cause, deserted his wife, or failed to support her and his children under the age of sixteen years; if a wife has not, without just cause, deserted her husband;
- (e) Has not within one year preceding such application for assistance been a professional tramp or beggar;
- (f) Has not divested himself or herself directly or indirectly of any property or income from property for the purpose of qualifying for assistance under this or any prior act of similar nature and has not conveyed to any person his property upon condition or agreement that such person should furnish support and maintenance, and such person to whom conveyance has been made is then living or the property conveyed is subject to performance of said conditions or agreement;
- (g) Has not been convicted of a felony within five years immediately preceding his application for assistance;
- (h) Is not because of his physical or mental condition in need of continual institutional care: *Provided*, That the county department of public welfare may upon due investigation pay all the assistance to such persons when properly cared for by relatives who are not legally required or themselves are unable to care for such persons;
- (i) Is found upon due investigation, (1) to be unable to regularly earn an income of at least one dollar per day on account of age, infirmity, or inability to secure suitable employment, and (2) to have a net income of not to exceed one dollar per day.

Sec. 10. Old age assistance shall not be granted to a person where the value of his real estate, as determined by the assessment roll figures pro-rated on the last five-year basis, exceeds three thousand five hundred dollars, or, if married and not separated from husband or wife, if the value of his or her property together with that of such husband or wife exceeds three thousand five hundred dollars, or if personal property with the exception of household goods to the value of five hundred dollars exceeds one thousand dollars, or, if the applicant has by any conveyance, as prohibited in section nine, subdivision (f), sought to qualify himself for any assistance thereunder subsequent to January first, nineteen hundred thirty-two.

Sec. 11. The annual income of any property, which does not produce a reasonable income, shall be computed at three per cent of its value as determined by the county department of public welfare.

The property owned at the date of application for relief shall be taken as property of the applicant for the purpose of this act.

Sec. 13. No trust deed nor assignment to the state of all or any part of the real or personal property, or insurance, of an applicant for assistance shall be required as a condition to the grant of such assistance. Forthwith on the taking effect hereof, any property or insurance deeded or assigned to the state under the provisions of section thirteen of act number one hundred fifty-nine of the public acts of nineteen hundred thirty-five shall be deeded or assigned back to the owner of such property, or to his or her estate.

The attorney general, at the request of the state department of public assistance, shall take the necessary proceedings and represent and advise the state department of public assistance in respect to any matters arising under this section or act.

Sec. 14. An applicant for assistance shall deliver his claim, in writing, to the county department of public welfare of the county in which he resides in the manner and form prescribed by the state department of public assistance.

All statements in the application shall be sworn to or affirmed by the applicant setting forth that all facts are true in each material point.

SOCIETY ACTIVITY

Any person qualified for and receiving old age assistance pursuant to the provisions of this act in any county in this state who moves or is taken to another county in this state, with the approval of the state department of public assistance, shall be entitled to continue to receive old age assistance in the county to which he has moved or is taken, and the county department of public welfare of the county from which he has moved shall transfer certified copies of all necessary records relating to the person to the county department of public welfare of the county to which he has moved.

Sec. 15. Whenever an application is made for old age assistance, the said county department of public welfare shall promptly make a thorough investigation and report to the state department of public assistance in the manner prescribed by it, giving the amount of assistance, if any, allowed, and if the application be disallowed, the reasons therefor. The laws of this state providing for a fair hearing in the county department of public welfare and in the state department of public assistance shall govern appeals by applicants for or recipients of old age assistance under this act.

Sec. 17. The county department of public welfare shall issue to each applicant to whom assistance is allowed a certificate, stating the amount of each monthly installment, to be payable as the county department of public welfare shall decide. The county department of public welfare shall cause to be made due record of all such certificates allowed with the address of the recipient, and whenever payment of assistance is made effective warrants shall be drawn upon the public welfare fund, as prescribed by the laws of this state.

Sec. 18. The recipient of any old age assistance may be required, in the discretion of the county department of public welfare, to file with such county department of public welfare a report, annually or otherwise, showing the recipient's financial condition, and upon failing to file such report within thirty days after demand or notice to the recipient by registered mail, the county department of public welfare may cancel the certificate issued to such recipient and cease payment thereunder.

Sec. 19. The assistance, if allowed, shall commence on the date named in the certificate, and one check for each calendar month shall be issued on the date as set by the county department of public welfare. All assistance given under this act shall be paid directly to the applicant except as provided in section twenty-three of this act.

Sec. 20. If at any time during the continuance of an old age assistance certificate the recipient, or the wife or husband of the recipient, becomes possessed of any property or income in excess of the amount allowed by this act in respect to the amount of assistance granted, it shall be the duty of the recipient immediately to notify the county department of public welfare of the receipt and possession of any such property or income, and the county department of public welfare may either cancel such certificate or suspend the assistance or pay the amount thereof during the period of the certificate and the recipient shall have the same right of review in case of suspension or cancellation of the certificates as provided in section fifteen of this act.

Sec. 21. On the death of any person receiving old age assistance such reasonable funeral expenses for burial shall be paid such persons as the county department of public welfare shall direct: *Provided*, that such expense shall not exceed one hundred fifty dollars, and if the estate of the deceased is insufficient to defray the same.

Sec. 22. While any person receiving assistance is an inmate of any private, charitable, benevolent, or fraternal institution, assistance may be paid to such person if otherwise eligible therefor under section nine hereof: *Provided*, That the state department of public assistance has approved and that it and its agents are permitted freely to visit and inspect said institution. It shall not be lawful for the authorities of any charitable institution, receiving public moneys, to refuse admission as an inmate of such institution, or to refuse relief, on the ground that the person is receiving assistance under this act.

Sec. 23. If the person receiving assistance is, on the testimony of reputable witnesses, found incapable of taking care of himself or his property, the county department of public welfare may direct the payment of the installments of the assistance to any responsible person for his benefit, which responsible person shall reside in the same city or township as the person receiving such assistance.

Sec. 25. All assistance grants under this act shall be reconsidered from time to time, or as frequently as may be required by the state department of public assistance. After such further investigation by the county department of public welfare as the state department of public assistance may require, the amount and manner of giving the assistance may be changed, or the assistance may be withdrawn if the county department of public welfare finds that the recipient's circumstances have changed sufficiently to warrant such action. It shall be within the power of the county department of public welfare at any time to cancel and revoke assistance for cause, and it may for cause suspend payments for assistance for such periods as it may deem proper, subject to appeal by the recipient as provided in section fifteen hereof.

Sec. 26. If at any time the state department of public assistance has reason to believe that an assistance certificate has been obtained by means set forth in section twenty-seven, it shall cause a special inquiry to be made. If on inquiry it appears that the certificate was improperly obtained, the recipient of such assistance shall be served with notice of hearing before the county department of public welfare of not less than ten days, as to the cancellation or suspension of such certificate. If after such hearing it shall appear that the certificate was improperly obtained, the county department of public welfare may cancel or suspend such certificate, subject to review as hereinbefore provided.

Sec. 27. Any person who by means of wilful false statement or representation or by

SOCIETY ACTIVITY

impersonation or other fraudulent device obtains or attempts to obtain, or aids or abets any person to obtain:

- (a) an assistance certificate to which he is not entitled; or
- (b) a larger amount of assistance than that to which he is justly entitled; or any person who knowingly buys or aids or abets in buying or in disposal of the property of a person receiving assistance, without the consent of the county department of public welfare, shall be deemed guilty of a misdemeanor, and, upon conviction, shall be sentenced to pay a fine of not exceeding one hundred dollars, or to imprisonment for not exceeding ninety days, or both, in the discretion of the court.

Sec. 28. Any person who violates any provision of this act for which no penalty is specifically provided shall be guilty of a misdemeanor, and, upon conviction shall be sentenced to pay a fine of not exceeding one hundred dollars, or to imprisonment for not exceeding ninety days, or both, in the discretion of the court. Where a person receiving assistance is convicted of an offense under this section the county department of public welfare shall cancel the certificate.

Sec. 29. If a person receiving assistance is convicted of any crime or offense and punished by imprisonment for one month or longer, the county department of public welfare shall direct that payments shall not be made during the period of imprisonment.

Sec. 31. Within ninety days after the close of each fiscal year the state department of public assistance shall report to the governor, for the preceding year, stating:

- (a) the total number of recipients;
- (b) the amount paid in cash;
- (c) the amount recovered from estates or recipients;
- (d) the total number of applications;
- (e) the number granted;
- (f) the number denied;
- (g) the number cancelled during the year; and
- (h) such other information as the governor or state department of public assistance may deem advisable.

Sec. 32. The county department of public welfare is hereby authorized and directed to make such reports and in such detail as may be required of it by the state department of public assistance, and the state department of public assistance shall make such reports and in such detail as may be required of it, to the federal government.

Sec. 33. All methods of procedure in hearings, investigations, recording, registration, and accounting, pertaining to old age assistance under this act, shall be in accordance with the rules and regulations as laid down, from time to time, by the state department of public assistance.

Sec. 40. THERE IS HEREBY APPROPRIATED FROM THE GENERAL FUND OF THE STATE THE SUM OF TEN MILLION DOLLARS FOR THE FISCAL YEAR ENDING JUNE THIRTY, NINETEEN HUNDRED THIRTY-EIGHT, AND FOR EACH FISCAL YEAR THEREAFTER.

Section 2. Sections two, four, five, six, twelve, sixteen and thirty of act number one hundred fifty-nine of the public acts of nineteen hundred thirty-five are hereby repealed.

Section 3. In respect to the transfer of administrative duties and functions from the state welfare department, the director of the state welfare department, and the old age assistance bureau of the state welfare department to the state department of public assistance, this act shall take effect on the effective date of the act of the nineteen hundred thirty-seven legislature creating and providing for the state department of public assistance. In respect to the corresponding transfers to the county departments of public welfare, this act shall take effect on the effective date of the act of the nineteen hundred thirty-seven legislature creating and providing for county departments of public welfare. In all other respects this act shall take effect on the first day of July, nineteen hundred thirty-seven. *Provided further*, That the services of all personnel connected with the administration of the departments hereby transferred to the new department of public assistance shall be terminated with the effective date of this act.

This act is ordered to take immediate effect.

T. THOMAS THATCHER,
Clerk of the House of Representatives.

FRED I. CHASE,
Secretary of the Senate.

Approved:

FRANK MURPHY,
Governor.

SOCIETY ACTIVITY

HOUSE OF DELEGATES, MICHIGAN STATE MEDICAL SOCIETY, 1937

Names of Alternates appear in italics

Allegan

W. C. Medill, Plainwell.
E. T. Brunson, Ganges.

Alpena-Presque Isle-Alcona

F. J. O'Donnell, Alpena.
A. R. Miller, Harrisville.

Barry

Robert B. Harkness, Hastings.
H. S. Wedel, Freeport.

Bay

Roy C. Perkins, Davidson Bldg., Bay City.
M. C. Miller, Auburn.

Berrien

Wm. C. Ellet, Benton Harbor.
D. M. Richmond, St. Joseph.

Branch

R. L. Wade, Coldwater.
Samuel S. Schultz, Coldwater.

Calhoun

A. T. Hafford, Albion.
H. M. Lowe, 601 City Nat'l Bldg., Battle Creek.
Richard Stiefel, Security Bank Bldg., Battle Creek.
Wm. Dugan, Post Bldg., Battle Creek.
Harvey C. Hansen, Central Tower, Battle Creek.
Raymond D. Sleight, Security Bank Bldg., Battle Creek.

Cass

W. C. McCutcheon, Cassopolis.
S. O. Loupee, Dowagiac.

Chippewa-Mackinac

F. H. Husband, Sault Ste. Marie.
W. F. Mertaugh, Sault Ste. Marie.

Clinton

Dean W. Hart, St. Johns.
F. D. Richards, DeWitt.

Delta

W. A. LeMire, Escanaba.
None named.

Dickinson-Iron

E. M. Libby, Iron River.
W. H. Alexander, Iron Mountain.

Eaton

A. G. Sheets, Eaton Rapids.
Paul Engle, Olivet.

Genesee

Robert Scott, 1215 Detroit St., Flint.
Donald R. Brasie, 907 Citizens Bank Bldg., Flint.
F. E. Reeder, 808 Genesee Bank Bldg., Flint.
Donald Wright, 1326 S. Saginaw St., Flint.
Dale Kirk, 300 E. First St., Flint.
R. S. Halligan, 405 E. First St., Flint.

Gogebic

W. E. Tew, Bessemer.
W. H. Wacek, Ironwood.

Grand Traverse-Leelanau-Benzie

E. F. Sladek, Traverse City.
C. E. Lemen, Traverse City.

Gratiot-Isabella-Clare

Myron Becker, Edmore.
A. L. Aldrich, Ithaca.

Hillsdale

L. W. Day, Jonesville.
A. W. Strom, Hillsdale.

Houghton-Keweenaw-Baraga

J. B. Quick, Laurium.
Alfred LaBine, Houghton.

Huron-Sanilac

*D. D. McNaughton, Argyle.
None named.

Ingham

L. G. Christian, 108 E. St. Joseph St., Lansing.
C. F. DeVries, 320 Townsend St., Lansing.
R. L. Finch, 124 W. Lenawee St., Lansing.
J. F. Sander, 320 Townsend St., Lansing.
P. C. Strauss, Bauch Bldg., Lansing.
C. D. Keim, 108 E. St. Joseph St., Lansing.

Ionia-Montcalm

A. I. Laughlin, Clarksville.
Harold M. Fox, Portland.

Jackson

Philip A. Riley, 500 S. Jackson St., Jackson.
J. J. O'Meara, Peoples National Bank Bldg., Jackson.
H. A. Brown, 701 Reynolds Bldg., Jackson.
C. S. Clarke, 605 Dwight Bldg., Jackson.

Kalamazoo-Van Buren

R. G. Cook, 22 McNair Bldg., Kalamazoo.
R. J. Hubbell, 1311 American National Bank Bldg., Kalamazoo.
Chas. Ten Houten, Paw Paw.
J. G. Kingma, Decatur.
J. P. Gilding, Vicksburg.
A. E. Pullon, Kalamazoo.

Kent

A. V. Wenger, 302 Loraine Bldg., Grand Rapids.
Leon Sevey, Medical Arts Bldg., Grand Rapids.
Wm. R. Torgerson, Metz Bldg., Grand Rapids.
Carl F. Snapp, Medical Arts Bldg., Grand Rapids.
Paul Kniskern, City Hall, Grand Rapids.
Geo. H. Southwick, 55 Sheldon Ave., S. E., Grand Rapids.
O. H. Gillett, 601 Metz Bldg., Grand Rapids.
Paul Willits, Medical Arts Bldg., Grand Rapids.
Ward S. Ferguson, 6 Park Place, Grand Rapids.
John Wenger, Coopersville.

Lapeer

H. M. Best, Lapeer.
D. J. O'Brien, Lapeer.

Lenawee

A. W. Chase, Adrian.
Geo. C. Hall, Adrian.

Livingston

H. G. Huntington, Howell.
J. J. Hendron, Fowlerville.

Luce

R. E. Spinks, Newberry.
A. T. Rehn, Newberry.

Macomb

R. F. Salot, 67 Cass Avenue, Mt. Clemens.
M. C. Smith, S. Gratiot Ave., Mt. Clemens.

Manistee

E. A. Oakes, Manistee.
L. W. Sweitzer, Manistee.

Marquette-Alger

Vivian Vandeventer, Ishpeming.
R. A. Burke, Palmer.

Mason

H. B. Hoffman, Ludington.
W. S. Martin, Ludington.

Mecosta-Osceola

G. H. Yeo, Big Rapids.
Jacob Bruggema, Evart.

* Deceased

SOCIETY ACTIVITY

Menominee

S. C. Mason, Menominee.
A. R. Peterson, Daggett.

Midland

L. V. Burkett, Midland.
Edward H. Meisel, Midland.

Monroe

D. C. Denman, Monroe.
None named.

Muskegon

E. O. Foss, Peoples Bank Bldg., Muskegon.
L. E. Holly, 876 N. Second St., Muskegon.

Newaygo

O. D. Stryker, Fremont.
None named.

Northern Michigan

Antrim, Charlevoix, Emmet and Cheboygan

W. O. Larson, Levering.
F. C. Mayne, Cheboygan.

Oakland

Ernest Bauer, Hazel Park.
C. T. Ekelund, 906 Riker Bldg., Pontiac.
None named.
None named.

Oceana

Walter M. Lemke, Shelby.
N. W. Heysett, Hart.

O.M.C.O.R.O. (Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw)

C. R. Keyport, Grayling.
C. G. Clippert, Grayling.

Ontonagon

E. J. Evans, Ontonagon.
J. L. Bender, Mass.

Ottawa

A. E. Stickley, Coopersville.
D. C. Bloemendal, Zeeland.

Saginaw

L. C. Harvie, 405 Wiechmann Bldg., Saginaw.
C. E. Toshach, 333 S. Jefferson Ave., Saginaw.
O. W. Lohr, 302 S. Jefferson Ave., Saginaw.
W. J. O'Reilly, 832 Hoyt St., Saginaw.

Schoolcraft

A. R. Tucker, Manistique.
James Fyvie, Manistique.

Shiawassee

A. L. Arnold, Jr., Owosso.
None named.

St. Clair

A. L. Callery, Peoples Bank Bldg., Port Huron.
T. E. DeGurse, Marine City.

St. Joseph

R. A. Springer, Centreville.
None named.

Tuscola

O. G. Johnson, Mayville.
T. E. Hoffman, Vassar.

Washtenaw

J. A. Wessinger, 339 E. Washington, Ann Arbor.
Dean W. Myers, 317 S. State St., Ann Arbor.
John Sundwall, 1832 Vinewood Ave., Ann Arbor.
S. L. LaFever, 216 S. State St., Ann Arbor.
H. B. Britton, Ypsilanti.
Warren E. Forsythe, University Health Service, Ann Arbor.

Wayne

T. K. Gruber, Eloise Hospital, Eloise.
L. J. Hirschman, 7815 E. Jefferson Ave., Detroit.
Grover C. Penberthy, 1515 David Whitney Bldg., Detroit.

H. A. Luce, 629 David Whitney Bldg., Detroit.
J. M. Robb, 641 David Whitney Bldg., Detroit.
A. E. Catherwood, 1337 David Whitney Bldg., Detroit.

W. D. Barrett, 311 David Whitney Bldg., Detroit.
R. H. Pino, 1001 David Whitney Bldg., Detroit.
H. W. Plaggemeyer, 1701 David Whitney Bldg., Detroit.

Wm. R. Clinton, 113 Martin Place, Detroit.
Wm. J. Stapleton, Jr., 641 David Whitney Bldg., Detroit.

R. C. Jamieson, 1309 David Whitney Bldg., Detroit.

E. D. Spalding, 662 Maccabees Bldg., Detroit.
R. C. Andries, 1737 David Whitney Bldg., Detroit.

H. W. Yates, 1229 David Whitney Bldg., Detroit.
Wm. J. Cassidy, 1737 David Whitney Bldg., Detroit.

*John L. Chester, 1742 Maccabees Bldg., Detroit.
H. F. Dibble, 1313 David Whitney Bldg., Detroit.

C. E. Dutchess, c/o Parke, Davis & Co., Detroit.
A. P. Biddle, 638 David Whitney Bldg., Detroit.

J. H. Andries, 402 David Whitney Bldg., Detroit.

A. W. Blain, 2201 E. Jefferson Ave., Detroit.
C. E. Umphrey, 13331 Livernois Ave., Detroit.
P. L. Ledwidge, 1818 David Whitney Bldg., Detroit.

L. J. Gariepy, 932 Maccabees Bldg., Detroit.
D. I. Sugar, 7310 Grand River Ave., Detroit.
C. K. Hasley, 1429 David Whitney Bldg., Detroit.

Earl Krieg, 1842 David Whitney Bldg., Detroit.
J. A. Hookey, 655 Fisher Bldg., Detroit.

S. W. Insley, 1302 Maccabees Bldg., Detroit.
Basil L. Connelly, 944 Maccabees Bldg., Detroit.
Wm. S. Reveno, 951 Fisher Bldg., Detroit.

C. F. Brunk, 7815 E. Jefferson Ave., Detroit.
Allan McDonald, 1340 Maccabees Bldg., Detroit.
F. W. Hartman, Henry Ford Hospital, Detroit.

B. U. Estabrook, 602 Maccabees Bldg., Detroit.
R. L. Clark, 917 Forest Ave., Detroit.
M. H. Hoffmann, Eloise Hospital, Eloise.

C. K. Valade, 1604 Eaton Tower, Detroit.
C. R. Davis, 6150 W. Fort St., Detroit.
L. J. Bailey, 510 Professional Bldg., Detroit.

S. E. Gould, 1432 Longfellow, Detroit.
E. R. Witwer, Harper Hospital, Detroit.
C. E. Simpson, 1210 Kales Bldg., Detroit.

F. J. Kilroy, Receiving Hospital, Detroit.
W. P. Woodworth, 2994 Grand Blvd., E., Detroit.

W. L. Hackett, 710 David Whitney Bldg., Detroit.

L. O. Geib, 3528 Van Dyke Ave., Detroit.
Edward Dowdle, 1044 Maccabees Bldg., Detroit.
B. I. Johnstone, 555 Fisher Bldg., Detroit.

G. L. McClellan, 1424 Maccabees Bldg., Detroit.
L. T. Henderson, 13038 E. Jefferson Ave., Detroit.

S. A. Flaherty, 6058 W. Fort St., Detroit.
W. C. C. Cole, 5140 Second Blvd., Detroit.
B. H. Priborsky, 742 Maccabees Bldg., Detroit.

L. W. Shaffer, 1305 David Whitney Bldg., Detroit.
M. Rice, 14302 Schoolcraft, Detroit.

I. S. Gellert, 1229 David Whitney Bldg., Detroit.
J. W. Hawkins, 4741 Spokane Ave., Detroit.
Don A. Cohoe, 13535 Woodward Ave., Detroit.

Wexford

W. Joe Smith, Cadillac.
John Carrow, Marion.

* Deceased

YOU ARE INVITED

to attend

THE GRAND RAPIDS MEETING

of the

**Michigan State Medical Society
September 28, 29, 30, 1937**

Three Days' Intensive Postgraduate Conference
Sixty Illustrious Lecturers
Seven General Assemblies
Seven Clinical Sessions

Seventy Technical Exhibits
Golf Tournament and Entertainment
Past Presidents' Banquet
Postgraduate Refresher--Good Fellowship

PLAN NOW TO ATTEND!

COUNTY SOCIETIES

EATON COUNTY

T. WILENSKY, M.D.

Secretary

The annual meeting of the Eaton County Medical Society was held at the Carnes Tavern, Charlotte, on the evening of Thursday, June 24.

Following dinner election of officers was held as provided in the Constitution. The results were as follows: President, Dr. H. A. Moyer, Charlotte; vice president, Dr. Bert Van Ark, Eaton Rapids; secretary, Dr. T. Wilensky, Eaton Rapids; treasurer, Dr. L. G. Sevener, Charlotte; delegate, Dr. A. G. Sheets, Eaton Rapids; alternate delegate, Dr. Paul Engle, Olivet.

It was decided that a picnic be held some time during the summer and the following committee was appointed to complete all arrangements for this annual event. Committee: Drs. B. Van Ark, Paul Engle and V. Rickerd.

The next regular meeting of the Eaton County Medical Society will be held at Charlotte on the evening of Thursday, September 30, 1937.

INGHAM COUNTY

RUSSELL HIMMELBERGER, M.D.

Secretary

DR. L. G. CHRISTIAN HONORED

The July meeting of the Ingham County Medical Society was in the form of a testimonial to Dr. L. G. Christian of Lansing, Chairman of the Legislative Committee of the Michigan State Medical Society, to honor and thank our associate for his untiring efforts as Chairman of this important committee and for his good work in leading the successful fight for the passage of a Basic Science Law in Michigan.

Dr. Robert S. Breakey offered the following resolution which was unanimously adopted.

WHEREAS a member of the Ingham County Medical Society has served with distinction and credit to our local Society in the capacity of Chairman of the Legislative Committee of the Michigan State Medical Society, and

WHEREAS, this individual, Leo Gregory Christian, has given unstintingly of his time and effort to the loss of his practice and own material income, and

WHEREAS his efforts have been crowned with the unique success in the passage of the Basic Science Law by both Houses of the Legislature and there has been accomplished a forward movement for the good of the people of the State of Michigan in the preservation of the dignity of the healing art, and

WHEREAS this success is without question due for the most part to the efforts of said Leo Gregory Christian and we as members of the Medical Society of Ingham County have benefited very directly in his efforts and indirectly for the good will focused upon our own Society throughout the medical profession of the State of Michigan, and, in fact, the country as a whole,

THEREFORE, BE IT RESOLVED, That we, the members of the Ingham County Medical Society, gratefully acknowledge Dr. Christian's devotion in the attainment of this ideal, his efforts on our own behalf as well as those of others, and we sincerely thank him for his own personal self-sacrifice throughout the past difficult period of this Chairmanship, and

FURTHER BE IT RESOLVED, That a committee be appointed for the consideration of an honorarium for Leo Gregory Christian, which may appear, after careful investigation, to be best suited in the effort which he has expended during his incumbency, and further

BE IT RESOLVED, That said committee appointed by the President be instructed to report its recommendations with the approval of the Society as a whole at the next recognized meeting of said Society, whether regular or otherwise.

Tiffany Watch Presented to Dr. Christian

Dr. Christian was presented with a beautiful Tiffany watch, properly inscribed, in recognition of a small portion of the credit due him for his activities in behalf of medicine and the public good.

Dr. Christian replied to various toasts by reviewing the tremendous amount of hard and constant work done by all members of the State Society to aid the passage of the Basic Science Bill. He also reported on other bills of medical interest passed by the legislature, especially the welfare laws, the occupational disease law, the prenuptial physical examination law, and the measure permitting the teaching of social hygiene in public schools.

The July issue of the bulletin was dedicated to Dr. Christian, as an expression of our appreciation for what he has done for us as physicians and members of the State Medical Society and as citizens of Lansing and the State of Michigan.

Short articles commending Dr. Christian were written by Dr. Henry E. Perry of Newberry, President of the Michigan State Medical Society; Dr. Henry Cook of Flint, president-elect, State Society; Dr. P. R. Urmston of Bay City, chairman of the Council of the State Society; Dr. Milton Shaw of Lansing, president of Ingham County Medical Society; Dr. T. K. Gruber of Eloise; Wm. J. Burns, executive secretary of the State Society; and Mrs. L. G. Christian.

MONROE COUNTY

FLORENCE AMES, M.D.

Secretary

Monroe County Medical Society held its last meeting before the summer recess, June 24, at the Monroe Country Club. This was the annual recreational meeting. The doctors' wives were guests of the society.

Some played golf in the afternoon. After a very enjoyable chicken dinner all played cards.

Dr. R. I. English, who has recently set up practice in Temperance, was elected to membership.

MUSKEGON COUNTY

L. E. HOLLY, M.D.

Secretary

Dinner meeting of the Muskegon County Medical Society was held at the Century Club, Friday, May 28, at 6:00 P. M. The meeting was called to order, following dinner, by Dr. Mandeville, President, at 7:40 P. M. Several guests were introduced. Dr. Mandeville introduced Dr. Charles Teifer, who was attending his first meeting since his accident in February.

The matter of an Exhibit at the Centennial was brought up for discussion. It was moved by Dr. Douglas and supported by Dr. William LeFevre that a committee be appointed to make arrangements for an exhibit to be held in conjunction with the three hospitals: That this committee be given power to act; that sufficient funds be voted to cover the cost of such an exhibit. This motion was discussed by Dr. Oden, Dr. George LeFevre and several others. The motion was carried unanimously.

It was moved by Dr. Holmes and supported by Dr. William LeFevre that the Medical Society ask the trustees of the Participating Association to furnish the necessary funds to the society for the financing of the Exhibit and Ad. Yes, 28; No. 4. The motion was carried.

The president appointed the following two committees:

COUNTY SOCIETIES

Exhibit: Dr. Foss, chairman, Dr. Douglas, Dr. Oden, Dr. Dasler, Dr. Durham, and Dr. D'Alcorn.

For the Chronicle Centennial Edition, the Publications Committee was appointed to act. Dr. Holmes, chairman, Dr. Holly, Dr. Wm. LeFevre, Dr. Pyle, Dr. Morford.

The speaker of the evening was introduced by Dr. Douglas, Dr. W. H. Hoffman, Chicago, who spoke on "Nephritides."

Business meeting of the Muskegon County Medical Society was held at the Century Club on Monday, June 14. The meeting was called to order by President Mandeville at 9:00 P. M.

The minutes of the last meeting were read and corrected as follows: Dr. Foss, chairman of the Exhibit Committee. The other members remaining as read. Several bills were read. It was moved by Dr. Thornton and supported by Dr. Teifer that the bills be paid.

A very lengthy and detailed report of the Allied Health Committee was given by Dr. Hartwell. The report is incorporated in the minutes. This report received much free discussion and it was pointed out by Dr. Holmes that the Inter-Allied Health Committee should act to correlate general medical needs in the community. Dr. Holmes moved that we as a Society generally concur in the activities of the Allied Health Group and give them our support. Further, that we ask them to continue with their work, that the communications from this committee, which are submitted to the Society upon a favorable vote, be transmitted to the Superintendents of the two hospitals and be then referred to the respective hospital staffs for action. This was carried unanimously.

It was moved and seconded that the County Society suggest to the hospitals that no special nurse be appointed without first consulting the attending physician. The motion was carried.

There was a long and frank discussion of the venereal situation in the Muskegon County without definite recommendations or motion. The matter of a County Health Unit was proposed by Dr. Stone. Dr. Stone presented a very complete outline of the set-up for Muskegon County, exclusive of the three cities, namely, Muskegon, Muskegon Heights, and North Muskegon. It was noted in his report that the Health Officer would be an administrative officer and would not engage in the active practice of medicine. The governing body of the Health Unit would be composed of five or seven members. The five-man board would be composed of two supervisors, two physicians and they in turn to elect a fifth member who should be a layman. The seven-man board would be composed of two county supervisors, two city supervisors, two physicians, and one layman. The question of diagnostic clinics was brought up. In this discussion, it was pointed out that the power to formulate these clinics would rest with the Administrative Board. It is impossible to here give all the discussion that came up relative to the proposed County Health Unit. In order to guide the committee appointed by the president of the County Medical Society in their negotiations with the committee from the Board of Supervisors, the following several motions were made and action noted:

It was moved and seconded that the County Health Unit be county-wide and not limited to the political units outside of Muskegon, Muskegon Heights, and North Muskegon; in other words, the County Unit to include all of Muskegon County and the three cities. This was carried unanimously.

It was moved and supported that the County

Health Officer must be a physician, licensed to practice in the State of Michigan, he must become a member of and maintain his membership in the Muskegon County Medical Society. The motion was carried.

It was moved and supported that the Health Unit would not include holding diagnostic or immunization clinics but that some system of medical participation should be worked out so that the necessary procedures would be done in the family physician's office. The motion was carried.

It was moved and supported that a five-man physician board shall be appointed by the president of the Muskegon County Medical Society, one member for five years, one for four years, one for three years, one for two years, one for one year, and then each succeeding year, one man appointed for five years.

This Board shall have full control of all purely medical matters appertaining to the workings of the Health Unit. The motion was carried unanimously. The meeting adjourned at 12:00 P. M.

Vascular Collapse in Toxemia of Pregnancy

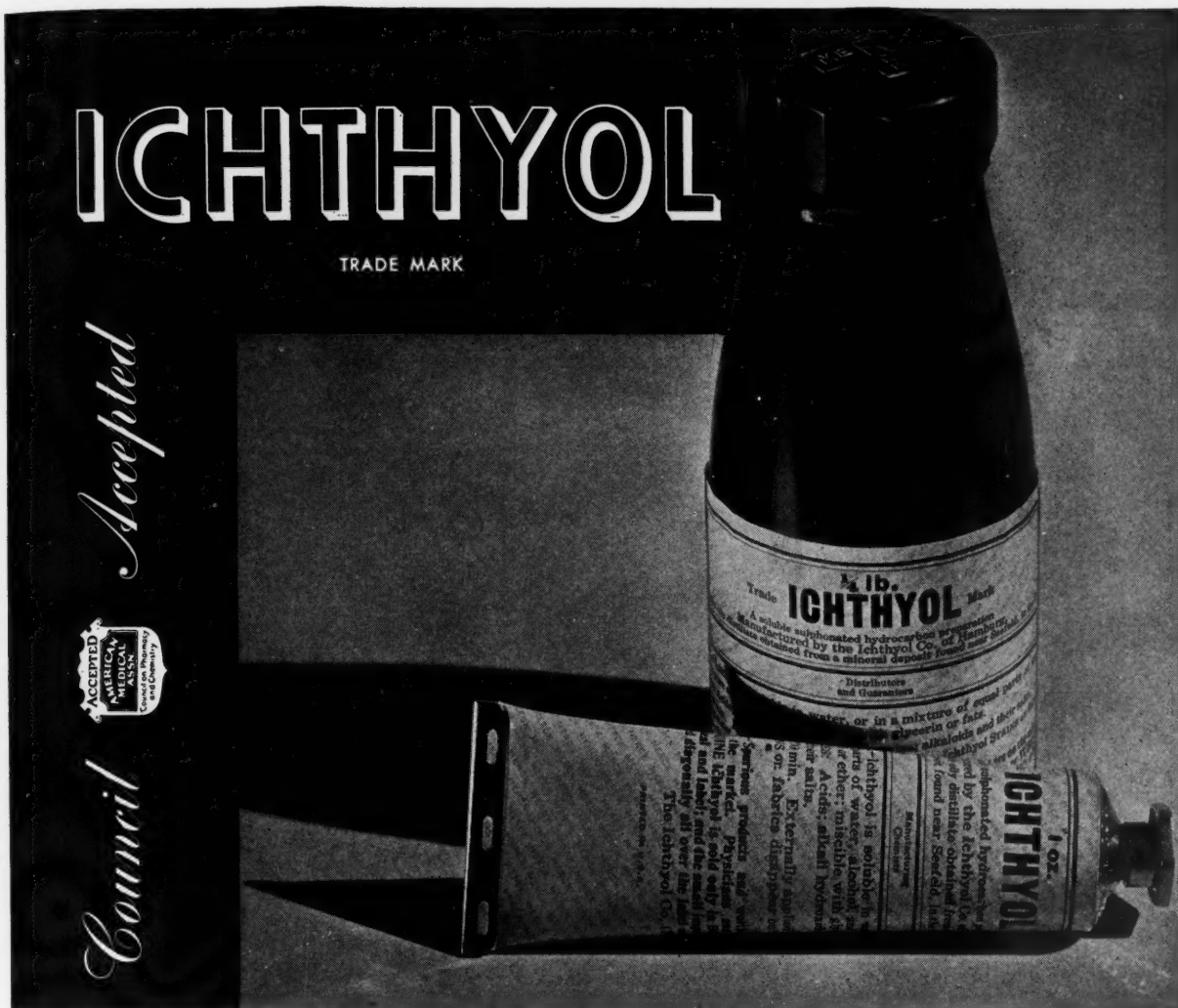
According to Fred L. Adair, Chicago, Arthur B. Hunt, Rochester, Minn., and Rupert E. Arnell, Chicago (*Journal A. M. A.*, Sept. 26, 1936), parturitional vascular collapse is a grave condition occurring typically in a rather small percentage of elderly multiparas who have been afflicted with a progressively severe nephritis in succeeding pregnancies. The incidence of this condition in their clinic was 0.2 per cent of all deliveries and 2.55 per cent of all toxemic patients. The toxemia seems to be the most important etiologic factor, with delivery definitely exciting the appearance of vascular collapse. The blood pressure and general condition of cases of severe and chronic toxemia should be watched closely for twelve hours after delivery. Equipment and personnel should be ready for prompt and effective treatment in the event of the collapse of such a patient. The mortality is high, 15.49 per cent of seventy-one cases reported. The condition is an entity deserving of recognition and further study because of its gravity and because proper treatment should reduce the mortality appreciably. The most common pathologic lesion was a chronic glomerulonephritis. The liver lesions in these cases may merit further study. Proper use of hypertonic intravenous dextrose solution forms the basis for effecting recovery from the shock. A secondary partial anuria, associated with hypotension, may require management.

CASE OF CYST OF ROUND LIGAMENT SIMULATING INGUINAL HERNIA

(Continued from page 573)

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TWO HEALTH DISTRICTS ORGANIZED IN UPPER PENINSULA

Two new health districts have been organized in the Upper Peninsula, each of which will be in the form of a two-county unit. Alger and Schoolcraft counties have voted to organize a joint health department and have selected Dr. E. J. Brenner as health officer. Dr. Brenner's headquarters will be at Manistique. Ruby Burkhart and Emma Johnson will serve as public health nurses.

Ontonagon and Baraga counties will also be organized as a two-county health district according to the recent vote of their respective boards of supervisors. The organization of this new department has not yet been completed.

Schoolcraft county had previously been included in Health District No. 6 with Luce and Mackinac counties, but voted to withdraw in favor of the new two-county organization. Alger county will be provided with a full-time health department for the first time.

NURSES AWARDED SCHOLARSHIPS IN PUBLIC HEALTH

Twenty nurses have been awarded scholarships by the Michigan Department of Health for additional training in public health at the University of Michigan and Wayne University. The training of public health personnel is made possible under the maternal and child health provisions of the Social Security Act.

The following nurses have been awarded one year scholarships: Madge Bresnahan, Grand Haven; Ina M. Young, Albion; Bertha Zagers, Fremont; and Minnie Vollmart, Midland. One semester's training will be provided for Ermyl Manni, Grand Rapids; Gertrude House, Kalamazoo; Mrs. Bessie Oakes, Flint; Hilma Asikainen, Stambaugh; Isabel Quinlan, Sault Ste. Marie; Mrs. Fanny Johnson, Ironwood; Mrs. Nell F. Stewart, Cleveland; Arda Muck, Menominee; Alethea Fritz, Three Oaks; and Emma Anderson, Marquette. Department staff nurses who will receive summer training at the University of Michigan include Mabel G. Munro, Annette Fox, Grace Myers, Bertha Cooper, Anna Virtue and Nell Lemmer.

BIRTH AND DEATH REGISTRATIONS ROUTED THROUGH LOCAL HEALTH DEPARTMENTS

Five additional county health departments have been organized by the Bureau of Records and Statistics so that birth and death registrations in these counties will be routed through the local department before being sent to the Michigan Department of Health. The new system provides local health officials with more timely and first-hand information regarding the vital statistics of their communities.

The recently organized counties include Chippewa, Iron, Menominee, Van Buren and Ottawa. Ten counties already operating under the new system include Oakland, Midland, Eaton, Barry, Allegan, Branch, Saginaw, Genesee, Calhoun and Hillsdale. Under this system, the local registrar sends his birth and death registrations to the county health department by the fourth of each month, and the department may then take such information from them as may be desired before transmitting them to the State Department of Health by the tenth of

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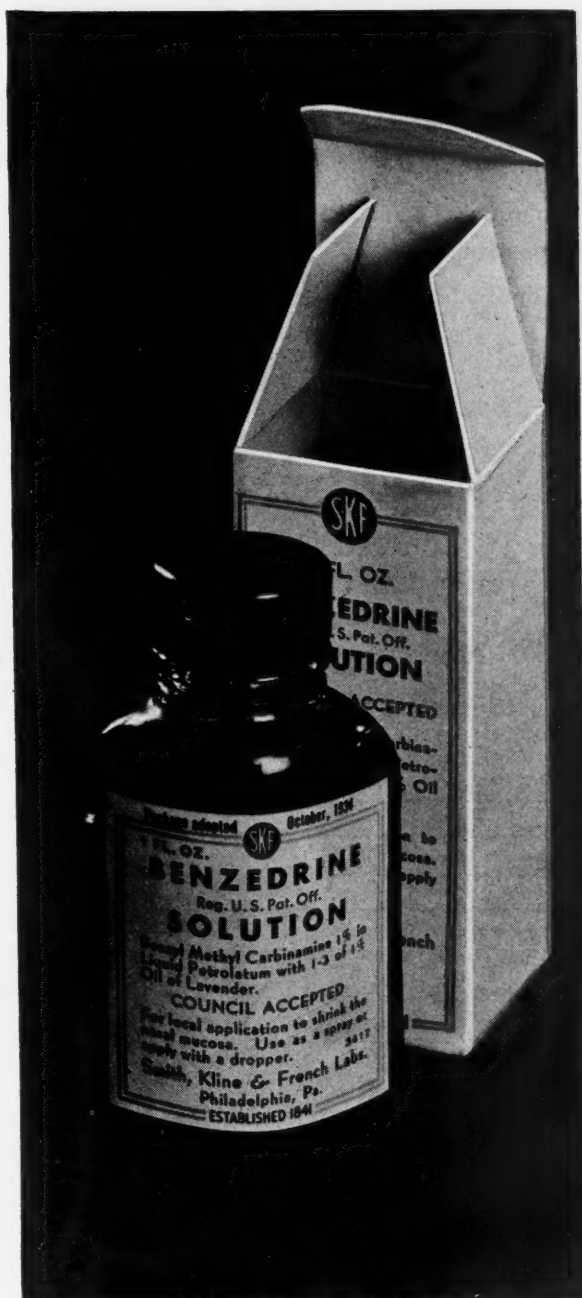
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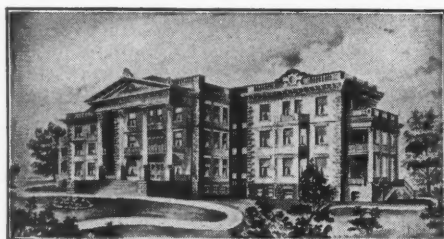
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the month. The physician's part in this program remains unchanged with his registrations still being made with the local registrar.

INTERSTATE EXCHANGE OF VITAL STATISTICS

In order to maintain more accurate records of births and deaths of Michigan citizens occurring in other states, the Michigan Department of Health is actively cooperating in an interstate exchange of such records. During the past year 2,029 birth and death records were exchanged with 43 other states and the District of Columbia and Canada. Only four states, Idaho, Maine, Rhode Island and Nevada, were included among those with whom no records were exchanged.

A total of 368 births and 776 deaths of residents of other states were recorded in Michigan. Other states returned to the Michigan Department of Health records of 340 births and 545 deaths of Michigan residents. The largest number of such registrations were exchanged with the neighboring states of Ohio, Illinois, Wisconsin, Indiana and Canada.

EATON COUNTY HEALTH OFFICER RESIGNS

Dr. Joe W. Davis has resigned as health officer of the Eaton County Health Department to accept a similar position in Marion County, West Virginia, his home state. Dr. M. B. Beckett, health officer of Allegan county, will serve as acting health officer for Eaton county until Dr. Davis' successor can be selected.

MONTHLY INCIDENCE OF COMMUNICABLE DISEASE

There is little change to report in the high incidence of scarlet fever mentioned in our review in the last issue of the JOURNAL. Scarlet fever has declined in keeping with the usual seasonal trend, but the incidence is still high as compared to last year and to the five year mean. Detroit and Southeastern Michigan cases continue especially high.

Rubella also continues to be evident in certain areas and to make confusion in "diagnosis," at least on the part of parents, if not physicians.

Diphtheria likewise is relatively high. There is no evidence of any further downward trend in keeping with the years 1921 to 1934.

At this writing there is little smallpox in the state. The outbreak in Monroe has apparently completely subsided, and the few cases occurring recently have been almost entirely in Detroit.

At this time there is no indication of any significant seasonal increase in the incidence of poliomyelitis. However, the "poliomyelitis season" is close at hand and the picture may change at any time, perhaps before this issue of the JOURNAL reaches the physicians of the state. It is the season when all physicians should be sharply on the lookout for evidence of this disease.

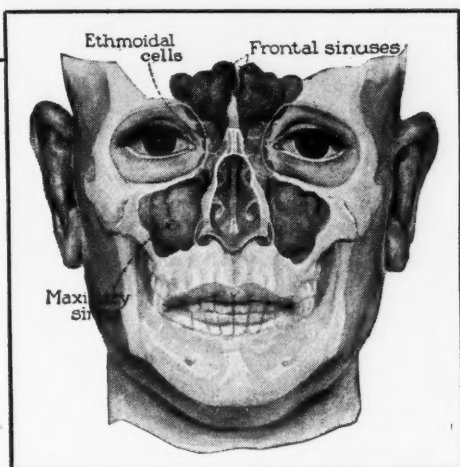
Another disease for which the season is close at hand is typhoid fever. The incidence so far this year has been low, as it was last year. So few cases of typhoid occur that many physicians now in practice have not had occasion to treat a single case, and yet it is not extinct. There were 341 cases reported for 1936, and it is for this reason that physicians may be caught unawares. Typhoid and undulant fever are always to be considered in fevers otherwise unaccounted for.

The season for diarrhea and enteritis is also approaching. The death of 467 babies under two years of age was assigned to this cause in the mortality classification for 1936. These conditions are apt to be particularly prevalent around lakes and resort areas.

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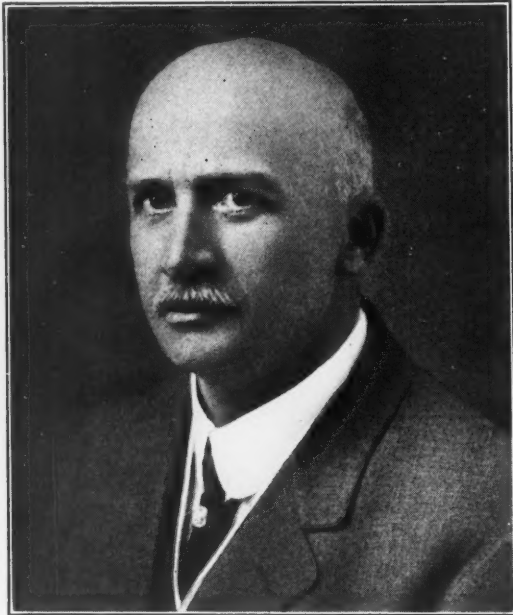
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IN MEMORIAM

IN MEMORIAM

Dr. Harry M. Joy

Dr. Harry M. Joy, veteran physician and surgeon of Calumet, Michigan, for forty-odd years, died suddenly May 15, of a heart attack at his apartment. Dr. Joy, born in 1869 in Grand Rapids, graduated



from the University of Michigan Medical School in 1892. He practiced for a few years in the southern part of the state, coming to Calumet a few years later. He was loved and respected by patients and colleagues. A talented and skillful surgeon, he gave unsparingly of his time and knowledge. He served organized medicine as chairman of the Public Relations Committee of the Houghton County Medical Society, and was keenly interested in all questions or matters affecting the public welfare.

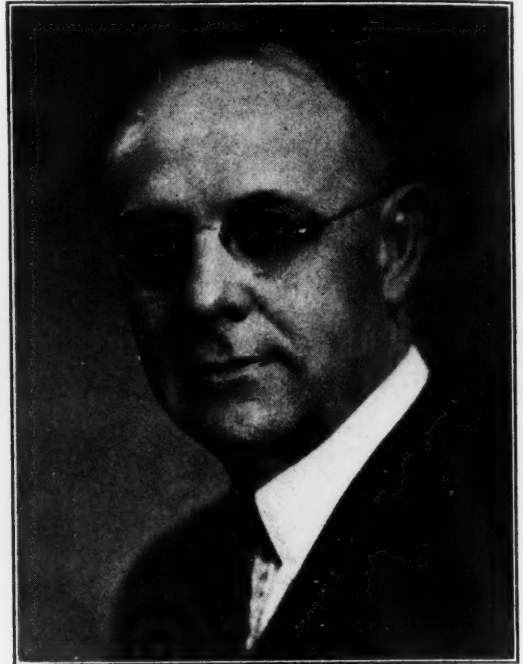
Dr. Joy served in the war as a Major of the Medical Reserve Corps, and was a member of the American Legion. He was a past president of the Houghton County Medical Society, and vice president of the Upper Peninsula Medical Society. He had served as a member of the Michigan State Board of Medical Examiners, and was a Fellow of the American College of Surgeons.

At the time of his death, he was Chief-of-Staff of Memorial Hospital, Laurium, devoting time and energy without stint to its affairs.

Dr. Julius H. Powers

Dr. Julius H. Powers of Saginaw died at his home on Monday, July 19, after an illness of nearly two years. Dr. Powers was born in New Hampton, Iowa, fifty-seven years ago. After a preliminary education in Iowa, he attended and was graduated from Grinnell College, Iowa, where he later served two years as instructor in Biology. Subsequently he attended the University of Michigan, where he graduated in 1906 from the University of Michigan Medical School. Following his graduation he located in Saginaw, where he was engaged up to the time of his illness. Dr. Powers served in the medical corps during the World War. He had always taken an active part in medical affairs. He was president

of the Saginaw County Medical Society in 1917, and for eleven years he was councillor of the eighth councillor district of the Michigan State Medical Society, during which time he was also chairman of the council. Dr. Powers was a member of the



Society of Michigan Industrial Surgeons and also a Fellow of the American College of Surgeons. He is survived by his wife; one son, Robert F. Powers; a daughter, Mrs. Daniel C. Bixby; and a brother, Edwin H. Powers.

Dr. Duncan A. Cameron

The Michigan House of Representatives, in session on Monday, June 21, 1937, adopted the following resolution to the memory of the late Dr. Duncan A. Cameron of Alpena:

"WHEREAS, Dr. Cameron found it impossible to retire due to the many calls and demands for aid and assistance, all of which he met, regardless of sacrifice to himself; and

"WHEREAS, The influence of Dr. Cameron, through the instilling of ideals and an example in the minds of the young people of Alpena, will live as a part of the tradition of the community; and

"WHEREAS, Dr. Cameron's service to his profession in Alpena County, in the Michigan Medical Society, in the American Medical Society and for sixteen years as a member of the State Medical Board of Registration, will live in the memory of the men who have had the privilege of serving and working with him; and

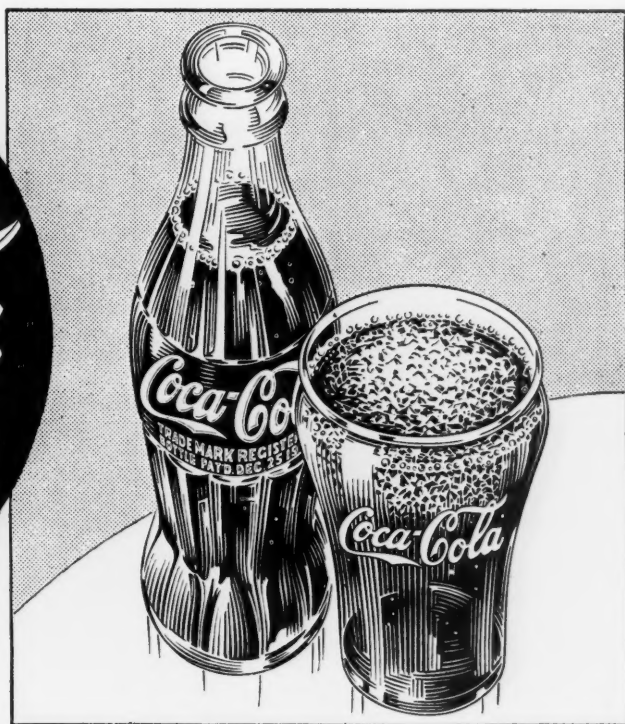
"WHEREAS, His work in Masonry and the fellowship of his fellow masons, will long be remembered; and

"WHEREAS, In the 1933 session of the legislature, Dr. Cameron earned the respect and confidence of his fellow colleagues; and

"WHEREAS, Dr. Cameron was a prominent member of the Alpena Aerie, F.O.E., in which organization he rendered great service; now, therefore be it

"RESOLVED by the House of Representatives, That the members of the House express their sorrow and grief on the death of Dr. Duncan A. Cameron; and be it further

"RESOLVED, That a copy of this resolution be transmitted to the family."



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◆ General News and Announcements ◆

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9. Lapeer County Medical Society.
10. Lenawee County Medical Society.
11. Livingston County Medical Society.
12. Luce County Medical Society.
13. Manistee County Medical Society.
14. Menominee County Medical Society.
15. Muskegon County Medical Society.
16. Newaygo County Medical Society.
17. Northern Michigan Medical Society.
18. Oceana County Medical Society.
19. Ontonagon County Medical Society.
20. Schoolcraft County Medical Society.
21. Shiawassee County Medical Society.
22. Tuscola County Medical Society.

The above County Medical Societies have paid dues in full for each and every member of the County and State Medical Society. A number of other County Societies lack but a few, sometimes only one or two, of being One Hundred Per Cent. Have YOU paid your dues?

COUNCIL AND COMMITTEE MEETINGS

1. July 29, 1937—Executive Committee of The Council—Durant Hotel, Flint—3:00 P. M.
2. July 29, 1937—Committee on Scientific Work—Durant Hotel, Flint—6:00 P. M.
3. August 11, 1937—The Council—Baldwin, Mich.—2:00 P. M.

* * *

Dr. George G. Stilwell of Detroit addressed the Federation of Women's Clubs at Lapeer on June 3. His subject was "Cancer."

* * *

Dr. and Mrs. C. E. Simpson of Detroit sailed Monday, May 31, for England, where they plan an extensive motor trip and also expect to visit the continent, touching Austria, Germany and France. They will return to Detroit the latter part of August.

* * *

Dr. L. A. Harris of Gaylord was the honored guest of the O.M.C.O.R.O. Medical Society at a meeting held at the hunting and fishing camp of Dr. C. G. Saunders of Gaylord, on the Main Black River, July 15. Dr. Harris has been in practice fifty-three years, fifty-one of which were spent in Otsego County.

* * *

Wayne County Medical Society's Eighth Annual Golf Tournament will be held at the Oakland Hills Golf and Country Club on Wednesday, August 18. This event usually attracts about 250 golfers, and is a splendid social gathering of medical men. The Oakland Hills Club is the scene of the recent National Open Tournament.

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GENERAL NEWS AND ANNOUNCEMENTS

Dr. J. H. J. Upham of Columbus, Ohio, president of the American Medical Association, will bring greetings from the A.M.A. to members of the Michigan State Medical Society on September 28, 1937, at the First General Assembly of the 72nd Annual Convention. It is a rare treat to hear Doctor Upham speak. Don't miss it!

* * *

"What the County Medical Society Means to the Community" was the title of an address by Mr. Wm. J. Burns, executive secretary of the Michigan State Medical Society, delivered before the Rotary Club of Battle Creek on July 26, at the Post Tavern. "What the Michigan State Medical Society is Doing" was the subject of an address by Mr. Burns to the Mecosta-Osceola County Medical Society on August 10, at the Western Hotel in Big Rapids.

* * *

Grand Rapids hotel reservations should be secured immediately for the M.S.M.S. Annual Convention, September 27 to 30, in order to avoid disappointments later. You will want to be sure to stay for the entire session this year. The program of the Seven General Assemblies is varied and interesting, with twenty-eight speakers, all of national prominence, coming from all parts of the United States. You cannot afford to miss this outstanding postgraduate opportunity.

* * *

The Berrien and Cass County Medical Society cooperate in issuing a monthly bulletin to their membership containing the program of meetings, minutes of previous meetings, a message from the president, and other pertinent information of value and interest to the membership. Dr. A. F. Bliesmer, secretary of the Berrien County Medical Society, is editor of the Bulletin. Congratulations, Berrien

and Cass County Medical Societies! Your Bulletin is worthy of emulation.

* * *

Dr. O. A. Brines of Detroit, chairman of the Cancer Committee of the Michigan State Medical Society, is making a tour of the Upper Peninsula in September giving lectures on "Cancer" to nearly all of the county medical societies located in the Upper Peninsula. Doctor Brines' itinerary is as follows:

September 20, 1937 (noon)	.....	Escanaba
September 20, 1937 (night)	.....	Iron Mountain
September 21	.....	Houghton
September 22	.....	Ironwood
September 23	.....	Marquette
September 24 (noon)	.....	Newberry
September 24 (night)	.....	Sault Ste. Marie

* * *

By Badge Only! Admissions to the General Assemblies of the 72nd Annual Meeting of the Michigan State Medical Society, Civic Auditorium, Grand Rapids, September 28 to 30, will be by badge only.

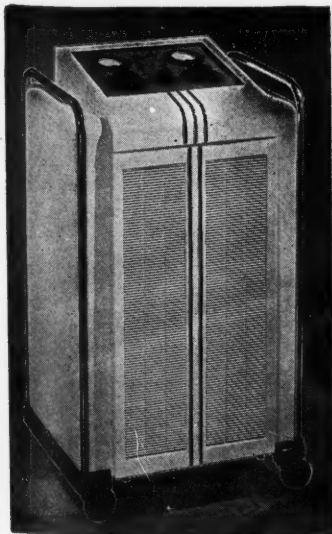
This ruling is made to protect members of the Michigan State Medical Society, who otherwise might be crowded out by others who wish to attend the various functions of the meeting. Be sure to register immediately upon arrival and secure your badge.

* * *

The Upper Peninsula Medical Society will hold its 1937 Annual Meeting in Houghton, Michigan, August 19 and 20. Thursday morning will be devoted to a discussion of the economics of medicine in charge of officers of the State Society. Many worthwhile scientific papers are planned which will make this annual postgraduate meeting outstanding. All members of the Michigan State Medical Society are cordially invited to attend. (For a copy of the program, see page 430 of your JOURNAL for June, 1937.)

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Outstanding physicians scheduled to appear on the program of the 72nd Annual Convention of the Michigan State Medical Society to be held in Grand Rapids Civic Auditorium, September 27 to 30, are Dr. Maxwell J. Lick of Erie, Pa., president of the Pennsylvania State Medical Association; Dr. Elliott P. Joslin of Harvard University Medical School, Boston, who will deliver the Andrew P. Biddle Oration; Dr. Thomas Parran, Jr., Surgeon General of the U. S. Public Health Service; Dr. J. H. J. Upham, president of the American Medical Association. Be sure to hear these men!

* * *

Crippled and Afflicted Child Commitments for June, 1937:

Crippled child: Total of 216. Of the total number, 84 went to University Hospital; and 132 went to miscellaneous hospitals. From Wayne County (included in above totals): Total cases, 53. Of the fifty-three cases in Wayne County, 3 went to University Hospital, and 50 went to miscellaneous hospitals.

Afflicted child: Total of 1,309 cases, of which 272 went to University Hospital, and 1,037 went to miscellaneous hospitals. From Wayne County (included in above totals): Total cases, 472. Of the 472 cases in Wayne County, 74 went to University Hospital and 398 went to miscellaneous hospitals.

* * *

Government aid during the depression was given to about 82,000 professional and technical workers, according to Harry L. Hopkins in his report of the Works Progress Administration. In this group of 82,000 were over 20,000 teachers, 15,000 musicians and music teachers, 6,800 nurses, 6,200 engineers, 4,500 draftsmen, 3,800 actors, 3,000 clergymen and religious workers, 2,900 artists, 800 chemists, assayists and metallurgists, 1,400 reporters and editors and 675 physicians, surgeons and dentists.

One of the arguments of the proponents of compulsory health insurance or state medicine is the economic security to be obtained by physicians akin to that of the teacher, if state medicine becomes a fact. The above figures seem to belie this argument.

* * *

"State Society Meetings" will be held in all of the county medical societies of the Upper Peninsula during August. Officers and councilors of the Michigan State Medical Society are making a tour of the Upper Peninsula, the tentative itinerary of which is as follows:

Monday evening, August 16—Chippewa-Mackinac at Sault Ste. Marie.
Tuesday evening, August 17—Luce and Schoolcraft at Blaney.
Wednesday noon, August 18—Marquette-Alger at Marquette.
Thursday, August 19, and Friday, August 20—Upper Peninsula Medical Society Annual Meeting at Houghton.
Monday noon, August 23—Ontonagon at Ontonagon.
Monday evening, August 23—Gogebic at Ironwood.
Tuesday evening, August 24—Dickinson-Iron at Crystal Falls.
Wednesday noon, August 25—Menominee at Menominee.
Wednesday evening, August 25—Delta at Escanaba.

Officers making the tour include: President, Henry E. Perry of Newberry; President-elect, Henry Cook of Flint; Secretary, L. Fernald Foster of Bay City; Chairman of The Council, P. R. Urmston of Bay City; and Executive Secretary, Wm. J. Burns. Others who will make part of the trip are: Councilors, F. C. Bandy of Sault Ste. Marie, W. A. Manthei of Lake Linden and Roy H. Holmes of Muskegon; Chairman of the State Society Legislative Committee, L. G. Christian of Lansing; Past President Grover C. Penberthy of Detroit and Delegate to A.M.A., Louis J. Hirschman, of Detroit.

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GENERAL NEWS AND ANNOUNCEMENTS

Your friends—the Technical Exhibitors at our Annual Meeting—make a real contribution to your State Society. They support us by covering the expenses of very ambitious and costly conventions; truly they deserve our support.

As of July 24, fifty-four (54) firms had contracted for expensive space in the 1937 exhibition at Grand Rapids:

Name of Firm	City	Booth Number
A. S. Aloe Company	St. Louis, Mo.	A-2
American Seating Company	Grand Rapids, Mich.	F-6
Arlington Chemical Co.	Yonkers, N. Y.	D-8
Bard-Parker Company, Inc.	Danbury, Conn.	B-4
The Borden Sales Co., Inc.	New York City	A-4
Burroughs Wellcome & Company, Inc.	New York City	E-3
S. H. Camp Company	Jackson, Mich.	B-10
Coca-Cola Company	Atlanta, Ga.	B-1
R. B. Davis Sales Corp.	Hoboken, N. J.	E-2
Detroit Branch, American Pharmaceutical Assoc.	Detroit, Mich.	D-2
Detroit X-Ray Sales Co.	Detroit, Mich.	E-8
The Doak Company	Cleveland, Ohio	E-6
The Ediphone Company	Detroit & Grand Rapids	C-8
H. G. Fischer & Company	Chicago, Ill.	A-8 and A-9
General Electric X-Ray Corp.	Chicago, Ill.	F-8
Gerber Food Products	Fremont, Mich.	B-3
Hack Shoe Company	Detroit, Mich.	G-2
H. J. Heinz Company	Pittsburgh, Pa.	D-3
Holland-Rantos, Inc.	New York City	F-1
Horlick's Malted Milk Corp.	Racine, Wis.	C-6
G. A. Ingram & Company	Detroit, Mich.	E-4 and E-5
The Jones Surgical Supply Company	Cleveland, Ohio	F-4
Kellogg Company	Battle Creek, Mich.	C-4
A. Kuhlman & Company	Detroit, Mich.	G-3
Lea & Febiger	Philadelphia, Pa.	D-4
Lederle Laboratories	New York City	C-1
J. B. Lippincott Company	Philadelphia, Pa.	D-5
M. & R. Dietetic Laboratories	Columbus, Ohio	D-6
McIntosh Electrical Corp.	Chicago, Ill.	F-5
Mead Johnson & Company	Evansville, Ind.	B-5 and B-6
Medical Arts Pharmacy	Grand Rapids, Mich.	C-2 and C-3
Medical Case History Bureau	New York City	A-7
Medical Protective Company	Wheaton, Ill.	A-3
Merck & Company	Rahway, N. J.	B-7
The Wm. S. Merrell Co.	Cincinnati, Ohio	B-9
Middlewest Instrument Co.	Chicago, Ill.	F-1
Philip Morris Co., Ltd.	New York City	B-8
C. V. Mosby Company	St. Louis, Mo.	A-6
Parke Davis & Company	Detroit, Mich.	G-9, G-10, G-11, G-12
Pelton & Crane Company	Detroit, Mich.	A-5
Petrolagar Laboratories, Inc.	Chicago, Ill.	D-1
Physicians Equipment Ex. Co.	Detroit, Mich.	C-7
Physiotherapy Equipment Co.	Detroit, Mich.	F-7
Picker X-Ray Corporation	Chicago, Ill.	F-3
Professional Management	Battle Creek, Mich.	G-8
Randolph Surgical Supply Company	Detroit, Mich.	H-9
W. B. Saunders Company	Philadelphia, Pa.	B-2
Standard X-Ray Equipment Co.	Detroit, Mich.	E-7
E. R. Squibb & Sons	New York City	C-5
Van Hoesen Farm	Rochester, Mich.	G-7
Wall Chemicals Co.	Detroit, Mich.	D-10
Western Electric Hearing Aids	Detroit, Mich.	G-13
The Zemmer Company	Pittsburgh, Pa.	F-2
Zimmer Manufacturing Co.	Warsaw, Ind.	B-12

Only ten (10) undisposed spaces remain in this great Exhibition. Doctor, if there are other firms with which you deal which are not in the above list, please advise your Executive Office, 2020 Olds Tower, Lansing, so that proper contact may be made with them. Say a word to their detail men when they come around to your office for orders. Thank you for this help.

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Among Our Contributors

Dr. Wm. S. Gonne is a graduate of the University of Michigan Medical School, 1917. He is instructor in clinical otology in the medical department of Wayne University and Director of the department of otology and bronchoscopy, Children's Hospital. He is assistant surgeon, Harper Hospital, also a member of the staff of Woman's Hospital and consultant to the Michigan Mutual Hospital.

* * *

Dr. Carey P. McCord graduated in medicine, 1912, at the University of Michigan. His medical work is limited to occupational diseases and industrial hygiene. He is consultant to a large number of America's industries and industrial associations. His chief current activities in Michigan are as Director of the Bureau of Industrial Hygiene, City of Detroit, and advisor on occupational diseases to the Chrysler Corporation, Detroit.

* * *

Dr. W. S. Martin was graduated from the University of Michigan Medical School in 1931. He served his internship at the Saginaw General Hospital, Saginaw, Michigan, 1931 to 1932. He has been practicing in Ludington since 1932.

* * *

Dr. A. P. Ohlmacher graduated from the University of Michigan in 1922 with the degree of A.B., M.D. During his last three years in the Medical School he was occupied as Assistant and Instructor under Dr. Novy in the Department of Bacteriology. In 1922-1923 he served as Intern and Resident Surgeon at the Grace Hospital, Detroit. From 1923 to 1937 he has practiced in Royal Oak, Michigan, and for the past seven years has confined his work to General Surgery. Since 1930 Dr. Ohlmacher has directed the Royal Oak Hospital. In April of this year he opened offices at 862-3 Fisher Building, Detroit. Dr. Ohlmacher is a member of the Oakland County, Wayne County, Michigan State and Medical Societies, the American Medical Association and a Fellow of the American College of Surgeons.

* * *

Dr. Robert Rosen graduated from Michigan State College, with an S.B. degree, in 1913; M.D. degree, Johns Hopkins University Medical School, 1918. He was interne at Brady Urological Institute, Johns Hopkins Hospital, and is at present a urologist at Grace Hospital, Detroit.

* * *

Dr. Paul Roth graduated from the American Missionary College in 1904. This College was later affiliated with the University of Illinois Medical School, Chicago. He is at present director of clinical laboratories and director of physical therapy and research, Battle Creek Sanitarium.

* * *

Dr. Max H. Skolnick is a graduate of the University of Michigan Medical School, 1932. He limits his practice to internal medicine.

* * *

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"Oh, yes, doctor, I knew, but the dog didn't. He bit me at exactly six o'clock."—*Die Koralle*.

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Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

SYNOPSIS OF DIGESTIVE DISEASES. By John L. Kantor, Ph.D., M.D. Associate in Medicine, Columbia University; Gastroenterologist and Associate Roentgenologist, Montefiore Hospital for Chronic Diseases, New York. Illustrated, St. Louis. The C. V. Mosby Company. 1937.

While the subject matter in a work of this type must, of necessity, be much abridged, the author has presented clearly and concisely the essential facts concerning the diseases of the digestive system.

THE TREATMENT OF DIABETES MELLITUS. By Elliott P. Joslin, M.D. (Harvard), M.A. (Yale). Medical Director, George F. Baker Clinic, New England Deaconess Hospital; Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital. With the coöperation of Howard F. Root, M.D. Physician, New England Deaconess Hospital; Instructor in Medicine, Harvard Medical School; Priscilla White, M.D. Physician, New England Deaconess Hospital; Instructor in Pediatrics, Tufts College Medical School. Sixth Edition, Thoroughly Revised. Illustrated. Lea & Febiger. Philadelphia. 1937.

Much that is found in this work was found in the previous edition. The author states that protamine insulin necessitated the revision of this work. He expresses praise of the use of protamine insulin, and prophesies a new era in the treatment of diabetes with it and other insulin compounds, not yet developed, yet he sounds a warning to those inclined to its use and says that regular insulin must yet be depended upon in many cases.

SYNOPSIS OF GYNECOLOGY. Based on the textbook, "Diseases of Women," by Harry Sturgeon Crossen, M.D., F.A.C.S. Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to De Paul Hospital and the Jewish Hospital; Fellow of the American Gynecological Society and of the Central Association of Obstetricians and Gynecologists; and Robert James Crossen, M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Gynecologist to St. Luke's Hospital and to De Paul Hospital; Fellow of the Central Association of Obstetricians and Gynecologists. Second Edition. St. Louis. The C. V. Mosby Company. 1937.

The author presents the general principles and salient features of gynecology in a concise form, more particularly for those not desiring the detailed descriptions found in a complete work on the subject, but for those who desire general knowledge of the subject.

TEXTBOOK OF DIAGNOSTIC ROENTGENOLOGY, by Lewis J. Friedman, M.D., Director Roentgen Ray Department, Bellevue Hospital; Instructor in Radiology, New York University College of Medicine. 638 Illustrations, 623 Pages. New York and London: D. Appleton-Century Company, Incorporated, 1937.

This is in a real sense a textbook. The author begins at the beginning by discussing such subjects as electricity, x-ray physics, fluoroscopy and radiography, and radiographic accessories such as intensifying screens, the Bucky diaphragm, cassettes and cones. The student after reading these chapters will have his questions on such subjects all answered. A chapter deals with the osseous system from the radiographic viewpoint, that is, the viewpoint of relative densities. Fractures and dis-

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locations as well as diseases of bones and joints are dealt with adequately. Part III is concerned with the various systems of the body in much the same way as a good text on the practice of medicine would treat the diagnostic phases of these systems. The verbal descriptions are clear, as brief as necessary and to the point. Another commendable feature consists of the illustrations which are largely original and produced especially for this work. For a single volume on diagnostic roentgenology, the book is highly commended. Though young in years, roentgenology has to its credit a vast literature with which the author has shown an intimate acquaintance. For fuller treatment of the various subjects, the reader is supplied with appropriate bibliographies.

PREOPERATIVE AND POSTOPERATIVE TREATMENT. By Robert L. Mason, A.B., M.D., F.A.C.S. Assistant in Surgery at the Massachusetts General Hospital. Illustrated. Philadelphia and London. W. B. Saunders Company. 1937.

This book presents a detailed consideration of the preparation and after-care of the surgical patient. Feeling that the surgeon is primarily a good physician, the author appreciates that the surgeon must have the coöperation of all fields of medical endeavor. He has consequently invoked the aid of men with special fields of interest in writing the book. The book is well written and covers its fields.

THE TECHNIC OF LOCAL ANESTHESIA. By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S. Professor of Surgery in the University of Kansas; Surgeon to The Halstead Hospital, Halstead, Kansas; to St. Luke's Hospital and St. Mary's Hospital, Kansas City, Missouri; and to the Providence Hospital, Kansas City, Kansas. Sixth Edition. St. Louis. The C. V. Mosby Company. 1937.

Herein the author has discussed the indications for local anesthesia, the technic of its administration and solutions used, including those more recently coming into use. He gives detailed instructions in its use in various locations of the body and illustrates its use with many drawings and photographs. There is a chapter on spinal and sacral anesthesia.

THE LARYNX AND ITS DISEASES. By Chevalier Jackson, M.D., Sc.D., LL.D., F.A.C.S. Professor of Bronchoscopy and Esophagoscopy, Temple University, Philadelphia, and Chevalier L. Jackson, A.B., M.D., M.Sc. (Med.), F.A.C.S. Professor of Clinical Bronchoscopy and Esophagoscopy, Temple University, Philadelphia. With two hundred and twenty-one illustrations, including eleven plates in color. Philadelphia and London. W. B. Saunders Company. 1937.

It is probable that few authors are more capable of writing a book on diseases of the larynx than are the authors of this book. While much in the work is intended for the laryngologist, the authors have called the attention of the general practitioner, the pediatricist, and the dermatologist to laryngological effects of disease processes in other parts of the body. For the specialist in this field, this book should prove invaluable. There are many colored drawings that will be of assistance to those who wish to use the laryngoscope.

NEW AND NONOFFICIAL REMEDIES, 1937. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1937. Cloth. Price, \$1.50. Pp. 557, LXIV. Chicago: American Medical Association, 1937.

The annual editions of this volume contain all that the busy physician needs to know concerning

the newer preparations which he is daily importuned by the detail men of the pharmaceutical manufacturers to use. The remedies listed and described here have been examined and found acceptable by the Council on Pharmacy and Chemistry, the deliberative body charged by the American Medical Association with the performance of this service for the practitioner, who has not the time or means to make the determinations for himself.

Some new drugs have been added in the 1937 edition, the descriptions of which will be found in the groupings to which they belong. There are some noteworthy changes in classification. The various vaso-constrictors, Benzedrine, Ephedrine, Epinephrine and Neo-Synephrin, have been grouped together as phenylalkylamine derivatives under the heading "Epinephrine and Related Preparations." This terminology is in keeping with the Council's policy of avoiding therapeutically suggestive names. Another similar change is the abandonment of the classification "Medicinal Foods" and substitution of a chapter under the title "Vitamins and Vitamin Preparations for Therapeutic and Prophylactic Use" in the previous edition. The consideration of other classes of food preparations was long ago transferred to the Council on Foods. The chapter "Organs of Animals" which has heretofore included only endocrine preparations has been expanded by transfers to this heading of the chapters Liver and Stomach Preparations, and Insulin.

The book contains general articles, descriptive of the classification under which the various drugs are listed. According to the preface, more or less thoroughgoing revisions have been made of the articles: Arsenic Compounds; Compounds Containing Trivalent Arsenic; Compounds Containing Pentavalent Arsenic; Bismuth Compounds; Epinephrine and Related Preparations; Iodine Compounds; Iodine Compounds for Systemic Use; Mercury and Mercury Compounds; Pituitary Gland; Salicylic Acid Compounds; Serums and Vaccines; Antipneumococcic Serums; Silver Preparations; Tannic Acid Derivatives.

ANNUAL REPRINTS OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY of the American Medical Association for 1936, with the Comments That Have Appeared in the JOURNAL. Cloth. Price, \$1. Pp. 104. Chicago: American Medical Association.

This book is essentially a record of the negative actions of that distinguished body, the Council on Pharmacy and Chemistry of the American Medical Association; that is, it sets forth the findings concerning medicinal preparations which the Council has voted to be unacceptable for recognition and use by the medical profession. Many of the reports record outright rejection or the rescinding of previous acceptances; others report in a preliminary way on products which appear to have promise but are not yet sufficiently tested or controlled to be ready for general use by the profession.

Among the reports on out-and-out unacceptable products are Amend's Solution and the "Igol" products, iodine preparations marked under misleading or unacceptable claims, the latter under an uninformative proprietary name; Androstine-Ciba, claimed to be a testicular extract and found to be an irrational combination of inactive preparations, marketed with unwarranted and misleading claims; Gadoment, a preparation of cod liver oil in a wax base with zinc oxide benzoin and phenol, proposed for use in the treatment of burns, cuts and minor skin irritations, found unacceptable as being an unoriginal product of insufficiently declared composition marketed under a coined proprietary name with un-

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warranted therapeutic claims, and indirectly advertised to the public; the "Carasyl" preparations which are essentially mixtures of psyllium flour, karaya gum and fig flour, marketed with unsubstantiated therapeutic claims under a proprietary name.

In 1934 the Council sponsored an exhaustive report on bacteriophage therapy which pointed out that in view of the present status of knowledge, no such preparations could be accepted for New and Nonofficial Remedies. In this volume of the collected Council reports the Council declares the "Phagoid" preparations, a line of bacteriophage products, definitely unacceptable because they are offered to the medical profession with unscientific, unwarranted claims, thus encouraging physicians to use in a routine way medicaments, the therapeutic value of which had not been established, and because the preparations conflicted in other ways with the rules of the Council.

This volume includes a preliminary report on Trichophyton and Oidiomycin—trichophyton preparations marketed by Lederle Laboratories, Inc. This report is a sequel to the preliminary report on Trichophyton Extract issued in 1932, which postponed consideration to await development of further clinical evidence on Trichophyton therapy. Also included in this volume is a report on the unacceptability of two trichophyton preparations, Dermatomycol and Dermotricofitin, distributed in this country by Ernst Bischoff Co., Inc., under the stated proprietary names without sufficiently declared composition and with unwarranted therapeutic claims.

Other preliminary reports are Refined and Concentrated Antipneumococcic Serum, Type VII, Lederle, Present Status of Tetrachlorethylene (since accepted for N.N.R.), Smallpox Vaccine (from Chick Chorio-Allantoic Membrane) Lilly, and Use of Trichloroethylene for General Anesthesia.

CLINICAL ALLERGY DUE TO FOODS, INHALANTS, CONTACTANTS, FUNGI, BACTERIA AND OTHER CAUSES. Manifestations, Diagnosis and Treatment. By Albert H. Rowe, M.S., M.D., Lecturer in Medicine in the University of California Medical School, San Francisco, California; Chief of the Clinic for Allergic Diseases of the Alameda County Health Center, Oakland, California; President of the Association for the Study of Allergy, 1927-1928. Philadelphia: Lea & Febiger, 1937.

In writing this book, the author has attempted to cover the entire field of clinical allergy. After discussing the origin, nature and mechanism of allergy, he discusses its clinical aspects as they are observed in the various systems of the body. Gastrointestinal allergy in its manifold manifestations is well covered. The facts concerning bronchial asthma, nasal allergy, allergic dermatoses, urogenital allergy, allergic migraine and the nervous and arthritic symptoms of allergy are given, as interpreted by the author. No book by this author would be complete without a consideration of diet as a factor in allergy and here he gives a detailed discussion of his "elimination diets." He recognizes, however, that inhalants, contactants, drugs, physical agents, as well as ingestants, are frequently major factors in the cause of allergic symptoms. He has given them due consideration in his discussion of allergy, whatever its manifestations.

While his enthusiasm may not be shared by all, the author believes that allergy is much more frequently a factor in the etiology of disease than now generally recognized. The sum of the knowledge concerning allergy and its symptoms is put in such form that the student and specialist may find ready at hand the latest on the subject.

ENDOCRINOLOGY CLINICAL APPLICATION AND TREATMENT. By August A. Werner, M.D., F.A.C.P., Assistant Professor of Internal Medicine, St. Louis University School of Medicine; Associate Physician, St. Mary's Group of Hospitals; Physician Endocrine Clinic, St. Louis City Hospital; Staff Member, St. Louis City Hospital, Sanitarium and Infirmary; St. Louis Training School for Mentally Defective Children and the Missouri State Hospital No. 1, Fulton, Mo. Illustrated with 265 engravings. Philadelphia: Lea & Febiger, 1937.

The author has attempted to give a summary of the knowledge now available. While he realizes that much of it is inexact, he believes that, if available, it will aid in the diagnosis and treatment of endocrine diseases. His handling of the subject of defective function of the pituitary is fascinating and lucid. He discusses the various known and theoretical hormones and the diseases resulting from dysfunction. He shows the effect of pituitary hypofunction on the development of the hands and stresses the value of this evidence in diagnosing these conditions. In his treatment of the subject of function of the sex glands he discusses the menstrual cycle, its relations to ovulation and the "safe period." The cause of derangements of this function are detailed in the light of present knowledge. The menopause and the treatment of its distressing symptoms is given. Abnormal growth and development as caused by the inter-relation of the pituitary, the gonads and other endocrine glands is made easily understood. He discusses the preparation of the hormones now commercially available and from time to time suggests their use, yet frankly states that many of them are only of theoretical value. In other cases he recommends a preparation "if and when available."

The function of other glands with internal secretion are discussed under their appropriate headings. The effect of the endocrines on obesity, on the hair, skin and the teeth is given as now understood. Many excellent illustrations are seen, which add interest and make the text more readily comprehended.



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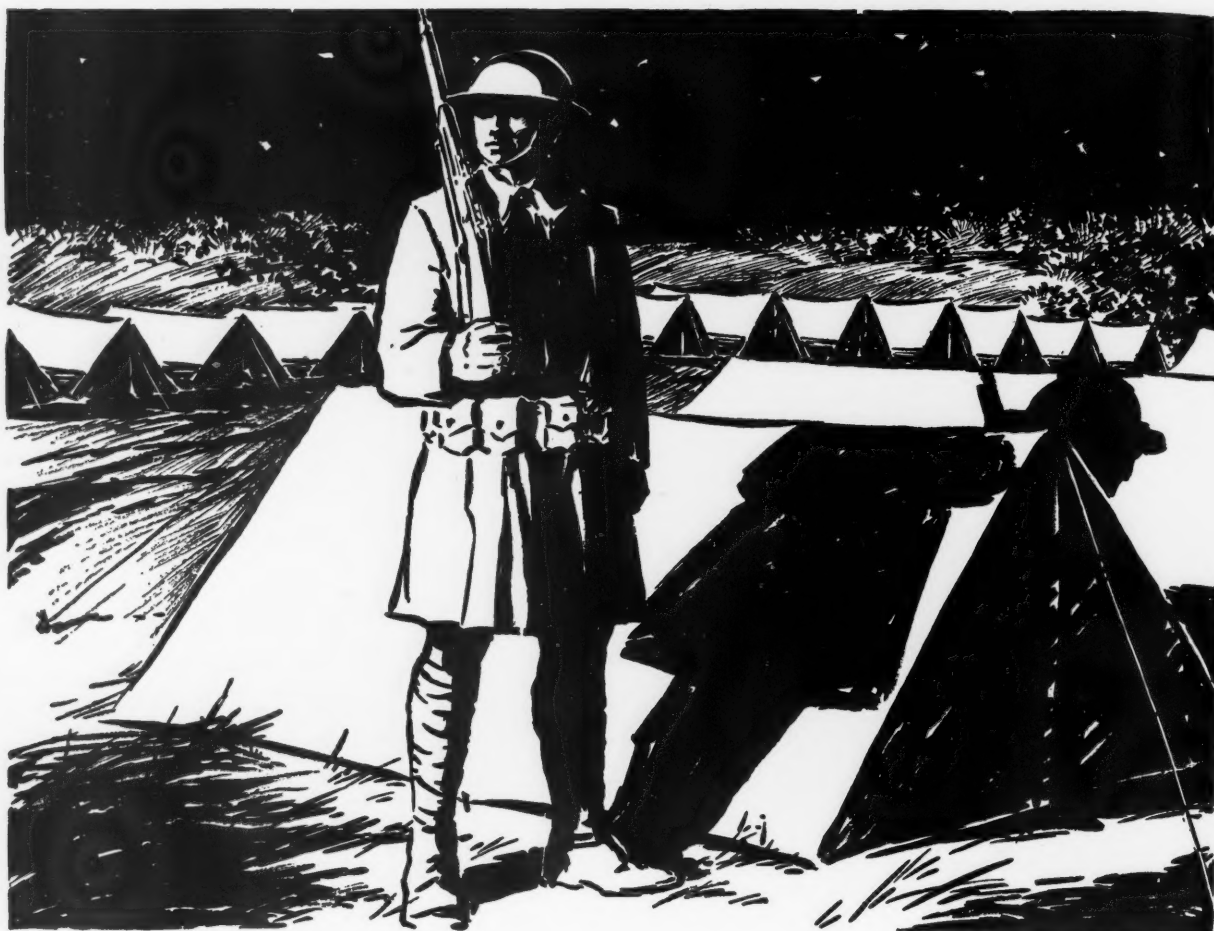
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